

national



SAFETY NEWS

APRIL 1953

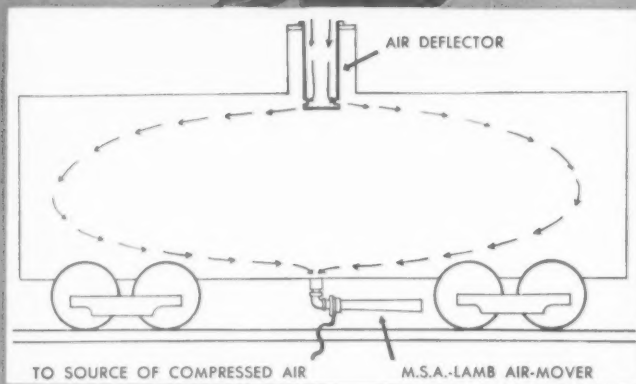


THIS MONTH

**A Safety Observer in the Orient
Improvements in Pole-Top Resuscitation
Facts and Fancies About Safety Supervision**



How one company cut
tank car venting time
from 16
to ONE hour
... safely ...
with **M·S·A**
Equipment



Knocking fifteen hours off the job time for freeing tank cars of explosive vapors and gases and bettering the safety factor at the same time might sound like magic, but it's just routine practice for a large gasoline manufacturing company.

The line drawing above diagrams the how-it's-done story. An M.S.A.-Lamb Air-Mover is connected to the bottom outlet of the tank car. Compressed air, forced through the "bell," expands at high velocity and produces a powerful suction effect. Air is sucked into the tank through the dome opening where a special deflector

directs the air stream to both ends of the tank. Vapors and gases are gathered up and exhausted through the outlet horn of the Air-Mover. The expelled air stream is tested at 5-minute intervals with the M.S.A. Explosimeter, a portable device for detecting the lower limits of combustibles. Venting is continued until the Explosimeter reading is zero.

If you are concerned with removing vapors and gases from vessels, this M.S.A. equipment team can help you do it faster, with greater safety. Write for complete details.

MSA
SAFETY EQUIPMENT HEADQUARTERS
MSA

Call the M.S.A. man on your every safety
problem ... his job is to help you.



MINE SAFETY APPLIANCES COMPANY

BRADDOCK, THOMAS AND MEADE STREETS • PITTSBURGH 8, PA.


At Your Service: 76 Branch Offices in the United States

MINE SAFETY APPLIANCES CO. OF CANADA, LIMITED

Toronto, Montreal, Calgary, Winnipeg, Vancouver, New Glasgow, N.S.

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Cable Address "MINSAP" Pittsburgh

The advertisement features numerous detailed black and white illustrations of ants. They are scattered throughout the page, some near the top corners, some around the central text, and some near the bottom. The ants are shown in various orientations, some facing left, some right, and some slightly angled. They have a segmented body, six legs, and antennae.

Give fire half a
chance and it will
over-run you like a
swarm of ants.

You must stamp it out
anywhere it shows itself.

In the paint locker,
power plant, garage.

That calls for a battery
of strategically placed
KIDDE Portable Fire
Extinguishers.

Get the ants out of your plants.
Call your KIDDE dealer today

Kidde

Walter Kidde & Company, Inc.,

445 Main Street, Belleville 9, N. J.

Walter Kidde & Company of Canada, Ltd., Montreal, P. Q.

National Safety News, April, 1953

national

Vol. 57, No. 4

SAFETY NEWS

Published monthly by National Safety Council

APRIL 1953

THE COVER: While visiting the operations of the Kenora Division of the Ontario-Minnesota Pulp and Paper Company, Dan Adair, of the National Safety Council's Industrial Department, snapped this picture of men loading pulpwood logs at Vermillion Bay, Ontario. With pike poles, the men guide the logs into place in the car without getting under the load.

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Statements and opinions advanced in signed articles are personal expressions of the authors, not necessarily those of the National Safety Council.

We owe you **an apology!**

We have always been proud of the speed and efficiency with which we serviced our customers, whether they ordered one pair or hundreds.

Then, last Fall, we ran an ad promising "same day shipment" on all orders received up to noon daily. We should have knocked on wood. Because the roof fell in.

We were literally deluged with orders . . . more orders than we could even write up, let alone ship. And as luck would have it, just before the ad appeared our factories signed a huge contract for the armed forces.

Between limited production and vastly increased sales, our deliveries ran weeks late. We want to assure you that your Lehigh representative has not been at fault. He complained more constantly and bitterly than you did. Yet, it was the greatest tribute to our company and our shoes that our customers beefed . . . as they should, and then waited.

We are "over the hump," now. Our deliveries, while not as prompt as they will be, have caught up with the backlog. We hope soon to reinstate "at once" service whenever you need it.

If you have been inconvenienced by delayed shipments in the past few months we owe you our most humble apology and our sincere thanks for your understanding and cooperation.



When You're Sure of the **QUALITY** You're Sure of the **PROTECTION**



H-10.—For general use in semi-hazardous areas. Non-corrosive white metal frame, drop oval 6.00D curve lenses, rigid double bridge construction, adjustable nose pads, flexible cable-type temples with sweatproof non-flammable insulated covering. Available with Ray-Ban absorptive lenses.



J-11.—Same as the H-10 (above) except fitted with non-corrosive wire mesh nose and side screens giving impact protection from every angle. Recommended for use wherever the impact hazard is greatest and most uncertain. Also available with Ray-Ban lenses where glare hazards prevail.



H-30.—This is a special Hookover for wear over prescription safety lenses for the purpose of protecting and prolonging the valuable prescription lenses—particularly bifocals. The Hookovers are not supplied with hardened lenses. Available for safety glasses with or without side shields. Also in Ray-Ban.



M-50.—Here is the Ful-Vue model in all-metal spectacle also available for use with hardened prescription lenses. Widely used indoors and out where adequate protection against frontal impact is needed, but where smart styling is also a desirable factor. Features similar to H-10 except bridge has auxiliary concealed reinforcement.



P-57.—This is basically the M-50 frame (above) but with Ray-Ban lenses and green acetate side shields for use generally where protection is required from all-angle impact and from harmful rays emitting from welding arcs and other intense light sources. Ful-Vue temples permit unrestricted wide-angle vision.



BAUSCH & LOMB
Safety Eyewear

Air Casualties

It's bad air that does it. But you can step up production by putting a Coppus Blower on the job to keep the air moving — and keep the men cool.

The kind of air a man works in has a lot to do with how much work he can turn out.

In confined places like shipholds or tanks or drums or boilers . . . or wherever the air is stagnant or hot or full of fumes . . . a Coppus Blower is a *must* for getting first-class work out of the men, all the time.

A Coppus Blower or Exhauster helps avoid sickness and lassitude due to bad air . . . and improves morale, too.

Portable and adaptable for special purposes, Coppus Blowers and Exhausters will have dozens of uses around your plant. The "Blue Ribbon" (a blue painted band) is your assurance of quality performance at lowest cost.



COPPUS

BLUE RIBBON BLOWERS



THE BLOWERS THAT PUT MORE MINUTES IN EVERY MAN'S HOUR

CABLE MANHOLE AND TANK VENTILATORS — BOILER MANHOLE BLOWERS AND EXHAUSTERS — HEAT KILLERS — SHIPHOLD VENTILATORS . . . DESIGNED FOR YOUR INDUSTRY — ENGINEERED FOR YOU

MAIL THIS COUPON To Coppus Engineering Corp., 124 Park Avenue, Worcester 2, Mass. Sales offices in THOMAS' REGISTER. Other "Blue Ribbon" Products in BEST'S SAFETY DIRECTORY.

PLEASE SEND ME INFORMATION ON SUPPLYING FRESH AIR TO MEN WORKING:

- | | |
|--|--|
| <input type="checkbox"/> in tanks, tank cars, drums, etc. | <input type="checkbox"/> on boiler repair jobs. |
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| <input type="checkbox"/> on coke ovens. | <input type="checkbox"/> wires and sheets. |
| <input type="checkbox"/> on steam-heated rubber processes. | <input type="checkbox"/> general man cooling. |
| | <input type="checkbox"/> around cracking stills. |

- | |
|---|
| <input type="checkbox"/> exhausting welding fumes. |
| <input type="checkbox"/> stirring up stagnant air wherever men are working or material is drying. |
| <input type="checkbox"/> drying of walls, sheets, etc., after treated with coating material. |

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COMPANY

ADDRESS

CITY

(Write here any special ventilating problem you may have.)

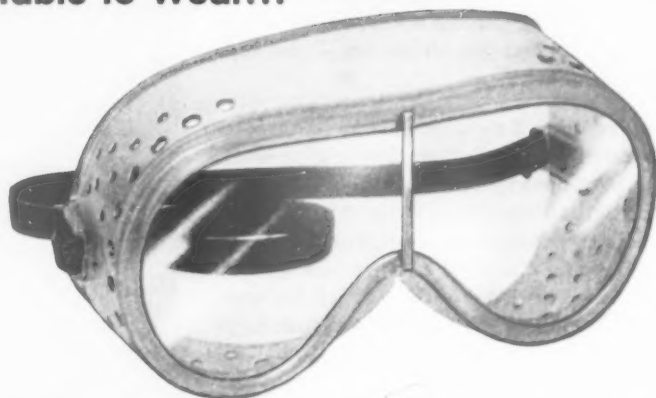
PUT THIS



TEAM

Comfortable to Wear...

Model 440 COVER-ALL For Complete Protection



SOFT VINYL FRAME — FITS OVER ALL PRESCRIPTION GLASSES

Extra-soft plastic frame with soft nose-flange fits snugly, yet comfortably, around any face contour—prevents foreign objects from entering in any direction!



6" WIDE REPLACEABLE LENS

The optically correct methacrylate lens provides full protection against extreme impact. Does not shatter. Lens is extra-wide (6") for picture-window vision, and is easy to replace. Improved metal lock bar holds lens tightly in frame. Frame acts as bumper to prevent scratching lens when laid face down.



VENTILATION AND COLOR STYLES

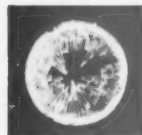
Screen ventilation shown in line sketch at left above; standard ventilation shown in photograph above. Lens colors: Clear or light, medium, and dark green.

EYE-SAVERS CAST METHACRYLATE The perfect optical lens material that's SAFE COMPARE EYE-SAVERS LENSES TO GLASS

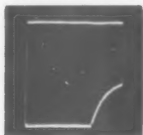
Eye-Savers lens Tempered glass lens Eye-Savers lens Tempered glass lens



Resists impact up to 11.6 inch-lbs. average. Note clean fracture without tendency to splinter



Fractured at 7.2 inch-lbs. Note dangerous splinters which may aggravate injury if driven into eye.



Visibility is unimpaired through this optically clear methyl methacrylate lens.



Note deep pitting. Visibility through this lens is seriously impaired.

IMPACT-RESISTANCE—Superior to Glass **SPARK-RESISTANCE**—Superior to Glass

CHEMICAL and LIGHT RESISTANCE . . . Eye-Savers methacrylate lenses resist affects of chemical splashes as well as, or better than, glass. These lenses (even the clear lenses) filter out 96 to 100% of harmful ultra-violet rays, and green lenses filter sufficient infra-red rays for use in welding areas, but not for direct arc welding. Methacrylate optical qualities for clear, non-distorted vision are superior to most glass and all other plastics.

SAVE YOUR EYES WITH METHYL METHACRYLATE!

LOW COST MODEL 441 WITH ACETATE LENS

The same soft plastic frame with a laminated acetate lens gives light-weight flexibility for average impact. An ideal low cost unit for many eye hazards.

Keep a supply of these Eye-Savers handy. You'll have the correct eye protection for most job conditions.

Quality Eye Protective Equipment

Made by the Leaders in Plastics



WATCHEMOKET OPTICAL CO., INC.

222 West Exchange St.
PROVIDENCE 3, R. I.

In Canada: Levitt-Safety Limited, Toronto 10, Montreal 1

TO WORK FOR YOU!

Easy on the Eyes...



**Tuc-Away
SPECTACLE**
For Up To 90%
Protection



FEATHER-LIGHT PROTECTION WORKERS LIKE TO WEAR!

Attractive Tuc-Away design and shatterproof methacrylate lenses provide sure safety for most eye hazards. Preferred by many because workers like to wear them! Feather-light construction and smart appearance promote worker cooperation. Universal nose-piece gives added comfort, eliminates extra size stock.



REPLACEABLE LENSES SNAP-IN: SNAP-OUT

Clear or colored lenses for the eye hazard are easily inserted and removed by the worker. Eliminates special repair departments.



RETRAX* TEMPLES FIT ANY FACE

Retrax* temples telescope in and out to any desired length for perfect fit. Eliminates the problem of individually fitting workers. Club temples also available. *T.M.

Put this team to work for you. Ask your safety supplier to show you samples of both these popular Eye-Savers!



SEMI-CUP LENS

Clear view 90% protection.

FULL 1" SIDE SHIELD

Clear view side protection.



REGULAR SIDE SHIELD

For average eye hazards.

Available in clear or light, medium, and dark green.

METHASPEC



SPECTACLE EYE SHIELD

SAFE • STURDY LIGHTWEIGHT



The low cost Methaspec is a curved one piece cast methacrylate (optically correct) eye shield providing excellent protection . . . ideal as visitors' goggles because exclusive features provide easy adjustment to fit any head. Retrax temples are adjustable for length, as well as lens angle, to fit comfortably close to the face. The opaque visor eliminates overhead or sun glare. Available in clear or light or medium green lenses.

Quality Eye Protective Equipment

Made by the Leaders in Plastics



WATCHMCKET OPTICAL CO., INC.

222 West Exchange St.
PROVIDENCE 3, R. I.

In Canada: Levitt-Safety Limited, Toronto 10, Montreal 1



"... More than 50% of our employees are on the Payroll Savings Plan ..."

PAUL W. JOHNSTON

President, Erie Railroad

"We on the Erie Railroad are extremely proud that 50% of our employees are on the Payroll Savings Plan for U.S. Defense Bonds. These thousands of employees are regularly providing for their own future security and at the same time contributing to the strength of our national defense. The American habit of thrift and regular purchase of U.S. Defense Bonds Shares in America are evidences of good, sound citizenship."

Good, sound citizenship . . . the American habit of thrift . . . a belief that a strong America is a secure America . . . a management that makes the Payroll Savings Plan available to *all* its employees—these are the reasons why more than 50% of Erie Railroad employees are enrolled in the Payroll Savings Plan.

For the same four reasons, more than 7,500,000 employed men and women in thousands of other companies are active members of the Payroll Savings Plan—their take-home savings in the form of U.S. Defense Bonds total more than \$150,000,000 per month.

Is your company in the "more than 50% participation" group? If it isn't, please bring this page to the attention of your top executive. Point out to him—

Two Simple Steps to a Successful Payroll Savings Plan

1. Phone, wire or write to Savings Bond Division, U.S. Treasury Department, Suite 700, Washington Building, Washington, D. C.
2. Your State Director, Savings Bond Division, will show your company how to conduct a simple person-to-person canvass that will put a Payroll Savings Application Blank in the hands of *every* employee.

That is all management has to do. Your employees will do the rest. They, like the employees of the Erie Railroad, want to provide for their personal security and at the same time do their part in helping to keep America strong.

The United States Government does not pay for this advertisement. It is donated by this publication in cooperation with the Advertising Council and the Magazine Publishers of America.

NATIONAL SAFETY COUNCIL



You're safe with the
NEW SUPER-TOUGH
Willson "shock-absorber" hat



More Than 300 Safety Products
Carry This Famous Trademark



The new Willson safety hat gives you effective, comfortable head protection in areas of overhead hazards.

It is entirely new in design, material and method of manufacture . . . tough as metal and more resilient!

It has been field-tested for over two years. Turn the page for other outstanding features of the new

Willson Super-Tough* Safety Hat.

*TRADEMARK

What's overhead won't worry you . . .

You're safe with the **NEW SUPER-TOUGH** Willson safety hat



Streamlined Contour

New "Streamlined" Contour deflects falling objects—they glance off with minimum shock to wearer. Note how reinforcing ribs run vertically from top of crown to brim—provide no areas for catching full impact of falling objects.

Pierce Resistance

This test requires a 16 oz. steel plumb bob, sharpened to an angle of 36°, be dropped vertically on the center of the crown from a height of 10 feet. The Willson Safety Hat withstands this test.

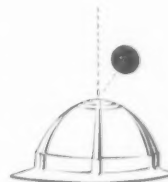


2 Headband Suspensions

Two styles of comfortable, adjustable headband suspension are available—regular and buffer type. In addition to the unusual shock-absorbing qualities of the regular vinyl plastic suspension, the buffer type, with unique corrugated molded vinyl "fins", completely cushions the headband from the shell of the hat.

Impact Resistance

The Willson Super-Tough* Safety Hat easily passes the standard 40 foot-pound impact test (8 lb. ball dropped 5 ft.). In fact, it will withstand a 2¼ pound bolt dropped 30 feet onto the crown (67½ foot-pounds). And extremes of temperature do not affect this impact resistance.

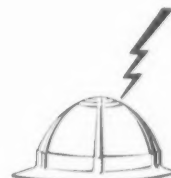


Inside Headband Mounting

Both styles of headbands in new Willson Super-Tough* hat are firmly supported at six points *inside* the hat. This does away with unsightly external laces, hat-weakening holes and current-conducting rivets! Adjusting strap is marked with hat sizes for easy fitting.

Dielectric Strength

This test measures the resistance of the hat material to the passage of electric current. The U. S. Navy requires application of 2200 volts, 60 cycles, a.c., for one minute without passage of current. The Willson Hat far surpasses this test—in fact, it has withstood over 10,000 volts, a.c.!



Cool Comfort

New design of the Willson Super-Tough* Safety Hat provides ample space between head and shell of hat. This space affords an extra margin of safety to the wearer and ample air circulation between headband and shell for maximum comfort.



WILLSON®
Established 1870

Write for your copy of the new bulletin describing the Willson Super-Tough* Safety Hat.

WILLSON PRODUCTS, INC., 205 Washington St., Reading, Pa.

*Trademark

Cut Your Fire Losses

With This Tested Rockwood Equipment



ROCKWOOD TYPE FFF FogFOAM NOZZLE WITH FogFOAM SCREEN puts out large fires in gasoline, benzol, and other highly volatile flammable liquids. Provides far greater extinguishing action than ever before possible with old-style chemical or mechanical foam equipment. Used in industrial plants, oil transport companies, refineries, airports, and municipal fire departments. Three sizes for service on 1½", 2½", and 3½" fire hose lines.

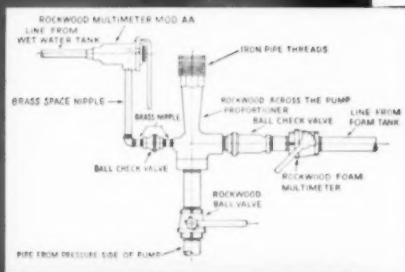
Nozzle provides three different discharges... FogFOAM with screen (shown), solid FOAM stream with foam shaper (not shown), and/or high-velocity WaterFOG by shutting off FOAM liquid. Through FogFOAM screen, 2½" size discharges 200 gpm @ 100 psi. Range: approximately 30 feet. Approved by Underwriters' Laboratories, Inc.

ROCKWOOD DOUBLE STRENGTH, FAST-FLOW FLUID FOAM LIQUID (3%) extinguishes large spill fires in gasoline with maximum speed and safety to firemen. More fluid, faster spreading. Mixed with 97 parts water, it forms excellent foam blanket that quickly re-seals if broken. Flows freely at sub-zero temperatures (-15°F). Clings to metal surfaces as an insulator. Will not cause corrosion and is easily washed off.

Used with fire hose line nozzles and permanently piped FogFOAM and FOAM installation. Comes in 5-gallon cans or 50-gallon drums.

Approved by Underwriters' Laboratories, Inc.

Regular Rockwood FOAM Liquid (6%) also available in 5-gallon cans or 50-gallon drums.



ROCKWOOD MODEL DUAL "B" AROUND-THE-PUMP PROPORTIONER automatically feeds FOAM liquid or wetting agent into hose lines. Eliminates waste, assures accurate mixing. Used when pressure is maintained by a pump from draft supply or booster tank. Operates in range from ¾" booster lines to 2½" hose lines.

Multimeter settings admit proper amounts of wetting agent for varying nozzle discharges and solution strengths — metering valve serves same purpose on FOAM side of eductor. Ball check valve prevents water from backing into FOAM liquid container.

Maximum nozzle discharge when using FOAM liquid: 200 gpm — when using 1% wetting agent solution: 100 gpm.

Custom-engineered proportioning systems for all mobile equipment are also available.

GET YOUR COPY of this informative, illustrated, 12-page booklet on Rockwood Fire Fighting Products. Write direct to Rockwood Sprinkler Company, 72 Harlow Street, Worcester 5, Massachusetts.



ROCKWOOD SPRINKLER CO.

Engineers Water...to cut fire losses

**EVERYTHING
BULLARD
IN SAFETY**

Safety Buyer's Guide

...for Greatest
Personal Protection
with Comfort

Hard Boiled Hat

Your choice of perma-
nent molded colors,
or a glow-in-the-dark
phosphorescent model
at small extra cost.



BULLARD SAFETY BELTS

Famous Morenci light weight design with extra safety margin. Continuous strand, super-twist webbing. No belt holes or grommets. Snub buckle. Adjustable keepers. Design adapted to belts for mining, construction, marine, petroleum and general industrial use; also in harness and saddle types. New brochure available.



DUST and SPRAY HOODS

Air supplied or respirator types. Feather-weight, tough, translucent material. Easy to clean. Full-vision, impact-resistant plastic face pieces are quickly replaceable. Airline Hood has non-fogging, no draft features; Cal. Div. Ind. Safety approved. Respirator hoods incorporate U. S. B. M. approved respirators. Other hoods approved for shot and sand-blasting; Acid Hood for safe acid handling.

Write for circular.

FIRST AID KITS

Cylindrical kit ideal for use indoors or out; mount on trucks, boats, poles, walls—wherever first aid kits are required. Compact, waterproof. Contains fabric Roll-up, complete with Unit Packets of first aid materials. Other kits include full line of weatherproof and bulk package kits, Pocket Packet and Combination Belt Kits.



Wouldn't you like to receive regularly the pocket-size publication, "What's New In Safety"? It gives highlights of new safety products. Just say "add my name to your mailing list."

DISTRIBUTORS IN PRINCIPAL CITIES

Write for detailed product literature or see your Bullard distributor or dealer

E. D. Bullard Company

275 EIGHTH STREET, SAN FRANCISCO 3, CALIF.

Your choice of COLOR



IN HARD BOILED^{*} Safety Hats

STRONGER-THAN-STEEL FIBERGLAS

crowns offer unlimited choice of vivid, permanent colors... with color molded all the way thru the safest crowns ever built. Shock-resisting ribbed design also available in aircraft grade aluminum.

Write for
Full Color Circular

SAVE MONEY

...save time! One size fits all heads... reduces inventories... adjustable headband and hammock; can be changed in six seconds. Self-shaping and air-cushioned for comfort.

**EVERYTHING
BULLARD
IN SAFETY**

*T. M. Reg.

**HARD
BOILED**

Distributors in
principal cities

E. D. BULLARD COMPANY
275 EIGHTH STREET, SAN FRANCISCO, CALIFORNIA



ALL HANDS ARE "SKILLED HANDS"

WITH

ANSUL DRY CHEMICAL FIRE EXTINGUISHING EQUIPMENT

With Ansul Extinguishers near-expert results are obtained by inexperienced operators. In fact, all Ansul Extinguishers are designed to provide a maximum of extinguishing effectiveness in the hands of inexperienced personnel.

This feature, plus benefits listed below, account for the outstanding preference for Ansul Equipment by fire protection men in all phases of American industry.

- 1 Water-tight construction throughout.
- 2 Easy on-the-spot Recharging (No tools needed.)
- 3 Quick, positive puncture operation.
- 4 Special cartridge guard protects cartridge . . . rugged construction throughout.
- 5 Ansul "PLUS-FIFTY" Dry Chemical used exclusively.
- 6 Corrosion resistant construction throughout.
- 7 Greater fire-stopping power.
- 8 Field tested by thousands of satisfied customers.



Send for File No. 816. You will receive a variety of helpful printed matter. Included is our latest catalog which describes Ansul Extinguishers of all sizes — from the small Ansul Model 4 to Ansul Piped Systems and Ansul 2000 lb. Stationary Units.

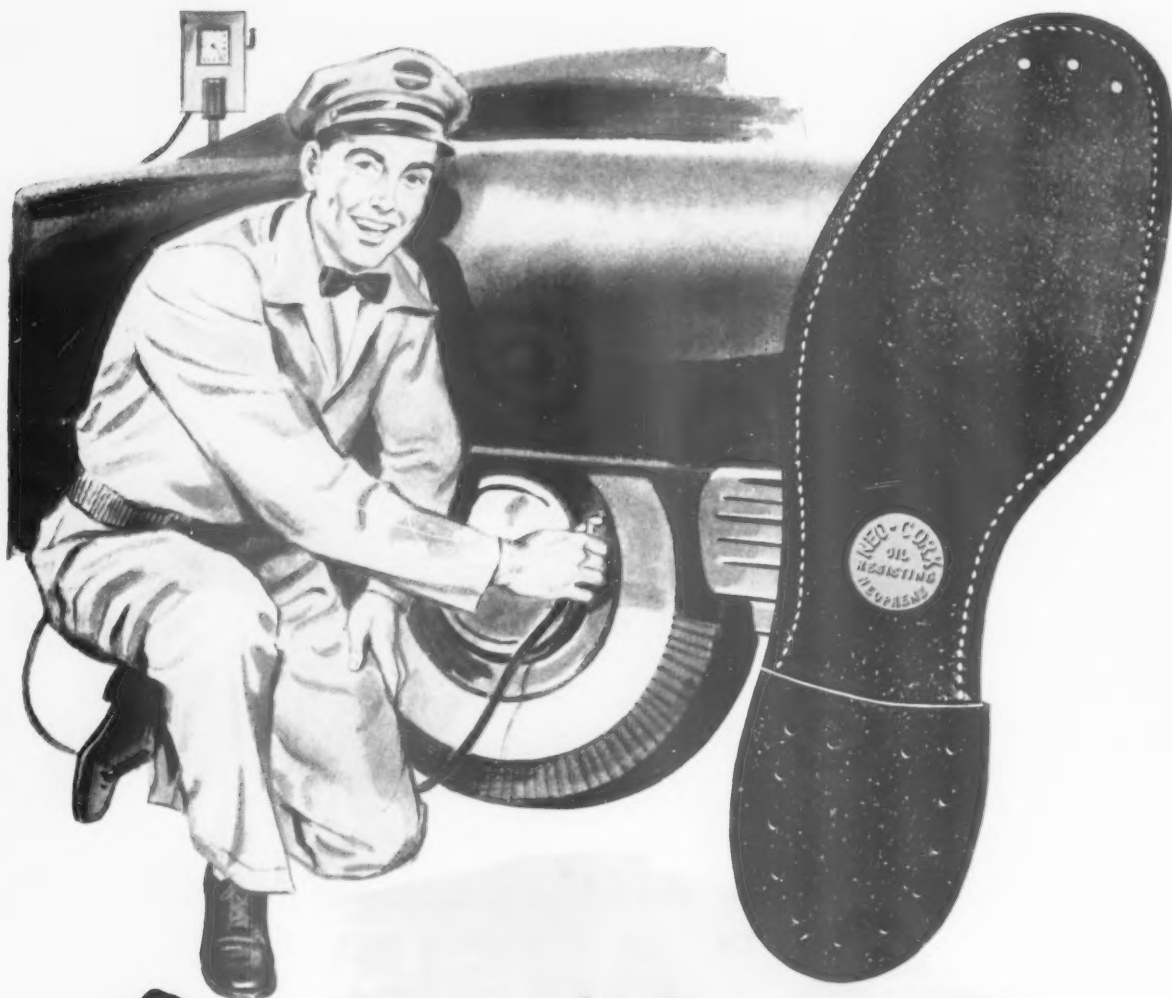
OFFICES AND DISTRIBUTORS IN PRINCIPAL CITIES
IN THE U. S. A., CANADA AND OTHER COUNTRIES



ANSUL
Chemical Company

FIRE EQUIPMENT DIVISION • MARINETTE, WISCONSIN

MANUFACTURERS OF DRY CHEMICAL FIRE EXTINGUISHERS, INDUSTRIAL CHEMICALS, SPECIAL CHEMICALS, REFRIGERANTS AND REFRIGERATION PRODUCTS • DISTRIBUTORS OF DU PONT "FREON" REFRIGERANTS.



Ounces of Prevention



Neo-Cord: A fine composition sole of high grade cord and Neoprene. Resists oils, gasoline, acids, caustics and heat. Has high non-slip efficiency for the life of the sole.



Neo-Crepe: A fine neoprene cellular sole for slip-resistant, cushioned comfort. Light weight, long-wearing, extremely flexible. Resistant to oil, gasoline, grease, caustics and metal chips.

Weighing as little as 22 ounces per pair these lightweight soles are literally "ounces of prevention." Real cork combined with DuPont Neoprene make Neo-Corks the lightest and one of the safest soles we have ever produced. Neo-Corks are slip-resistant under all floor conditions, non-marking, resist oil, gasoline, heat, acids and caustics. But that's not all, you'll find Neo-Corks are much cooler, waterproof, flexible and longer wearing thus assuring greater comfort, greater safety and economy.

Be sure you get genuine Neo-Cork soles on your next pair of shoes. Ask for them by the trade name "Neo-Cork." They are found on better quality work shoes everywhere.

GRO-CORD RUBBER CO.
LIMA, OHIO

Canadian Plant
GRO-CORD RUBBER CO. of CANADA LTD.
Tillsonburg, Ontario



Mothers and Daughters Doing Fine

In Her Mother's Footsteps—"Mother did all right and I hope to do as well," says Telephone Operator Betty Miller. She's shown here with her mother, Mrs. Ruby Miller, a telephone Service Assistant.

Many work together in telephone offices in communities throughout the country

It happens over and over again. A daughter sees how much her mother likes her telephone job and decides she would like to work there, too. So in she comes to put in her application.

When daughter follows mother, and brother follows sister, and son follows father, you get a pretty good line on how people feel about the telephone company.

They know from firsthand experience that "it is a good place to work."



Like Mother. Like Daughter. Betty Johnson (left) is a Service Order Typist in the same telephone building where her mother, Mrs. Dena Johnson, is Business Office Supervisor. Mrs. Johnson's aunt and cousin are telephone employees, too.



A Telephone Family. Mrs. Grace M. Donewald, an Instructor, visits her mother, Mrs. Grace Franks, a Special Commercial Clerk. Her father, a telephone Commercial Engineer, has recently been assigned as a Defense Activities Coordinator.

BELL TELEPHONE SYSTEM . . . "A Good Place to Work"





Production Teamwork
Wins in Safety Too!



HELP OSCAR SAVE
A LIFE-IT MAY BE
YOUR OWN!

SERVING INDUSTRY... SERVING AMERICA

You are always close to Continental Can with its 65 plants in the United States, Canada and Cuba, 17 field research laboratories and 63 sales offices.



MAKING "SAFETY RULES" EASIER TO SWALLOW

Safety is a full-time job in modern industry. Businesses employ experts to eliminate hazards. They spend long hours teaching the proper use of equipment. They hold safety campaigns and award prizes.

It might seem as if all the bases have been covered. But the safety story can't be told too often. So Continental, which makes the hot-drink cups used to feed workers in many plants, came up with an additional idea.

That is, to use these cups to put across safety messages at meal or snack time when the worker is relaxed, refreshed and receptive. As you can see from the sample shown here, these messages—delivered by a character called "Oscar the Lifeguard"—are brief and good natured, yet right to the point.

Workers see them, talk about them, act on them. Today, a great many of Continental's customers have made printed "safety cups" a small but highly effective part of their continuing safety programs.

This is not one of Continental's most important contributions to industry. But we thought you'd like to know about it as an example of the way we keep our eyes open to be of ever greater service.

CONTINENTAL

CONTINENTAL CAN BUILDING



CAN COMPANY

100 E. 42nd ST., NEW YORK 17, N. Y.



TIN CANS



FIBRE DRUMS



PAPER CONTAINERS



STEEL PAILS AND DRUMS



CAPS AND CORK



DECOWARE

*they willingly wear
the cooler pair*



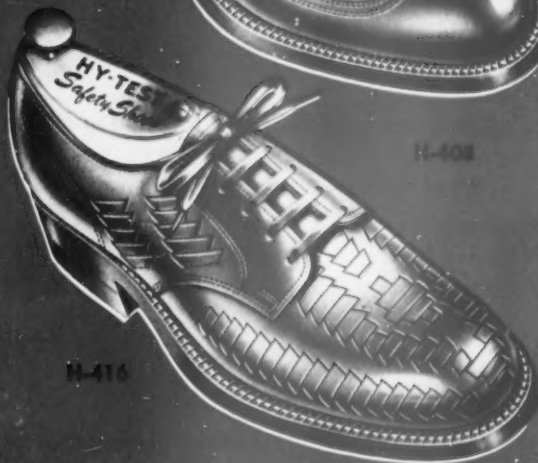
HY-TEST

SAFETY SHOES

the safety shoe
they want to wear



H-408



H-416

They WELCOME the cool comfort of Hy-Test Safety Shoes. Workers are eager to wear these summer favorites because Hy-Tests are cooler... cooler even than many shoes that don't have Hy-Test's protective features. They're actually ventilated, as well as having all the standard safety features, so the worker gets protection and cool-air comfort... BOTH AT THE SAME TIME. The American workman prefers these Hy-Test Safety Shoes. He KNOWS his feet are safe and he FEELS they're many degrees COOLER.

ALL HY-TEST SAFETY SHOES
FEATURE **Bolton** LEATHER
INSOLES

HY-TEST SAFETY SHOES

TRADEMARK REG. U. S. PAT. OFF.

*Insure Workers' Feet
in Sure
Protection*



THE WORLD'S LARGEST SELLING SAFETY SHOE
DIVISION OF INTERNATIONAL SHOE COMPANY,
ST. LOUIS 2, MISSOURI
NEW YORK OFFICE: SUITE 1700, 325 WEST 24TH ST.

Investment in Talent

THE BUSINESS LEADER who began as office boy and the statesman who got his start reading law books in an attorney's office are part of the American tradition. It is still possible to attain many positions of leadership without an academic degree.

It is true that many executives of limited education are able to hire college-trained specialists to work for them but that doesn't lessen the value of higher education. The country needs men with training in science and administration—and in the liberal arts, too.

With the structure and processes of industry becoming increasingly complex, and research assuming greater importance, the need for trained men grows. And for parents the problem of financing a higher education has become increasingly difficult. Private schools, facing higher operating costs and shrinking income from endowments, have been obliged to raise tuition fees to levels that are beyond the reach of many families.

Publicly supported schools have their problems, too. Enrollments and expenses are rising and the harassed taxpayers are objecting to more taxes. Meanwhile, the demand is increasing for college graduates—technicians, doctors, teachers, and so on.

For years the larger concerns have made a practice of looking over graduating classes, looking for promising material to be trained for good jobs in their organizations. Some companies are providing scholarships and joining with colleges in helping qualified students work their way through school.

Many schools have developed self-help plans for students. Among these, Antioch College was a pioneer in developing full-time off-the-campus jobs alternating with instruction periods. In many small colleges students are working their way to a considerable extent by jobs on the campus and adjoining farms.

From Illinois Institute of Technology comes an announcement of opportunities for high school

graduates with limited funds to secure a college education.

There are more part-time jobs than takers, says Clarence E. Deakins, dean of students at Illinois Tech. There are also scholarships, loans, and work-study programs. Companies want to take more students under the cooperative program than the Institute can provide.

Under the cooperative program, a student attends school for one semester, then works for a company the next semester. The program is offered in metallurgical engineering and mechanical engineering.

How much part-time work can a student carry without detriment to his studies and his health?

According to Dean Deakins, the average student can work about 12 hours a week, the B student can take on 15 hours, while the exceptional student can work as many as 20 hours.

Industry has much to gain from programs that develop talents and skills—in the humanities as well as in the mechanical arts. The nation's position in the modern world—perhaps its survival—depends on the development of these resources.

From the standpoint of safety there are important benefits in higher education. Technical schools have made notable progress in integrating accident prevention and occupational hygiene with their courses and technicians so trained are better equipped to serve industry.

Watch Your Language!

A few months back *Factory Management and Maintenance* carried an article, "Watch Your Safety Language." Among the objectionable terms was "safety hazards."

That term is not favored at NSC headquarters, either. We prefer *accident* hazards. But can anybody explain why we say *health* hazards instead of *sickness* hazards?

PART I



GROUND SAFETY

with the Pacific Airlift

By NORVAL BURCH



Most precious cargo of MATS will be found on Air-Evac flights like this, hurrying wounded Yanks from Korea to hospitals near homes.

FEW civilians are sufficiently well informed to dictate the over-all United Nations strategy in Korea—but all Americans are properly concerned about the solution, and agree that our military effort should be supported with typical American efficiency.

On a recent trip across the Pacific, I was privileged to see the operations of one important element of that support—the Military Air Transport Service—and I found its now famous efficiency reflected in the smooth functioning of its well organized safety program.

Military Air Transport Service was established June 1, 1948, by directive of the Secretary of Defense, under the National Security Act of 1947. Its formation marked the first time in American military history that elements of two separate services (Air Transport

First airlift for wounded American boys in Korea starts with plane like this on air-strip near battle front.



Transferred at rear line air fields to Troop Carrier planes like this, boys are flown to MATS base in Japan.





Photos by the author
and U.S. Air Force

Command of the Air Force and Naval Air Transport Service) were integrated for better contribution to the national defense.

This new major command of the United States Air Force soon began to play vital roles in events that shaped the course of history. Every day it earns more affection and respect, among the free nations around the globe, for its unique contributions to human welfare and world peace. Under the phonetic nickname derived from its initials, MATS has come to be loved, as a helpful good neighbor, by the peoples of many lands.

Before MATS was a month old, it undertook its first fabulous commitment—the air supply of food and fuel for beleaguered millions in the German capital during the 15-month blockade of Berlin. It was just two years old when the

MATS airlift flexibility was put to the supreme test by the Red outbreak in Korea. In fact, a MATS plane, with its four motors idling before take-off from Kimpo Airfield, outside Seoul, was the first American plane casualty in the Red air drive on Korea. Then began the longest sustained airlift operation in history, stretching roughly 10,000 miles from the American capital.

MATS was established on a relatively new theory in logistics (actually an extension of the Mahan doctrine of sea power): that strategic airlift, to meet the demands of the military, is the sustained mass movement by air of personnel and matériel to any part of the world in support of the military effort, in conformity with the over-all strategic requirements

of that effort, and supervised by the highest echelon of command concerned.

MATS is now proving its logistical value in the Pacific airlift. The Berlin airlift involved humanitarian aspects that commanded the admiration of the free world. But when MATS airlifted thousands of stranded Moslem pilgrims on their way to Mecca, this Air Force Command, within two or three days, is said to have accomplished more for American good will in the Mohammedan world than our diplomats had done in years. For the first time, Moslems included Americans in their prayers to Allah!

Now MATS is airlifting, clear across the Pacific Ocean from continental USA, thousands of tons
(Turn to page 70)



Frank Yocum (on crutches), 50,000th Air-Evac patient, talks in Tokyo to Gen. Aubrey Moore, and in Hawaii to Rear Adm. John M. Hoskins, Pacific Division commander of MATS. Admiral Hoskins was No. 1 Air-Evac patient.

One item in high priority cargo was sheep for religious ceremonies of Greek Expeditionary Forces in Korean war.



Giant transports can pick up massive artillery tractors like this and rush them to strategic points near front.





Improved Methods of Pole-Top Resuscitation

By J. E. APPEL

COMPREHENSIVE studies by various medical groups have established the superiority of push-pull methods of manual artificial respiration. These methods incorporate an active inspiratory phase with an active expiratory phase.

J. E. APPEL is Supervisor of Safety, Commonwealth Edison Company, Chicago.

This provides much greater lung ventilation and blood oxygenation than can be provided with a "push only" or "pull only" method, where only one phase of respiration is active. As a result, push-pull methods have been adopted by all national and federal agencies and many utility companies to replace previously endorsed single



Pole-top arm-lift method being performed astride cross-arms.

Pole-top arm-lift being performed from side of pole.

phase methods. Descriptions of the methods, test procedures, and results have been well documented in medical and lay journals during the last few years.^{1,2}

In the electric utility industry, the pole-top method developed by E. W. Oesterreich in 1931 has been adopted generally for applying manual artificial respiration to linemen shocked on the poles.³ This method allows for resuscitation to be started on the pole and eliminates the sometimes tragic delay when victims must be lowered to the ground before respiration can be started. Studies by Kowenhoven, Hooker, and Langworthy showed that in volunteers who passively suspended their respiration, the pole-top technique gave greater air exchange in the lungs than could be obtained from Schaefer Prone Pressure, the standard method at the time of their study.⁴

Recent studies by Gordon et al on apneic, curarized-anesthetized normal adults, while confirming previous studies, showed the pole-top method to be less efficient than push-pull methods.⁵ The technique used by these investigators produces a condition simulating that

found in victims requiring artificial respiration. This permits adequate appraisal of ventilatory efficiency.

As a result of the adoption of the newer methods of artificial respiration, the author and others began considering modifications in the present pole-top technique, a "push" only method, which would give ventilatory results comparable to those produced by the more efficient push-pull methods. These modifications consisted of incorporating an active inspiratory, or "pull" phase to give a push-pull method. After the modifications had been tried in the field by linemen and determined practical for use in the Edison system, they were discussed with members of the Department of Clinical Science at the University of Illinois Medical School.

These discussions led to a comparative study of pole-top modifications developed in the Commonwealth Edison Company with standard pole-top and prone methods, such as back-pressure, arm-lift, hip-lift back-pressure, and Schafer prone pressure.⁽¹⁾ Included in the study was a modification suggested by R. J. Young of the Public Service Company of Indi-

TABLE I
Pulmonary Ventilation with Manual Artificial Respiration
(After Gordon et al)⁽²⁾

| State | Method | Variation | Ventilation (cc./respiration)* |
|--------------------|-----------------|------------------------|--------------------------------|
| Conscious Resting | Normal | Tidal Volume | 514 |
| | | Vital Capacity | 4286 |
| Unconscious Apneic | Schafer | Prone Pressure | 382 |
| | | Back-Pressure | 572 |
| | Pole-top | Standard | 646 |
| | | Push-Pull | |
| | Prone Push-pull | Double-rock | 1044 |
| | | Single-rock | 1012 |
| | | Forward-rock | 902 |
| | | Arm-grasp | 1012 |
| | Prone Push-pull | Back-pressure arm-lift | 1144 |
| | | Back-pressure hip-lift | 1128 |

* Mean values for five normal, healthy, adult male volunteers.
All methods performed at rate of 12 times per minute.

ana. A modification suggested by P. V. Karpovich and C. J. Hale was not included because there was no knowledge of their work at the time.⁽³⁾

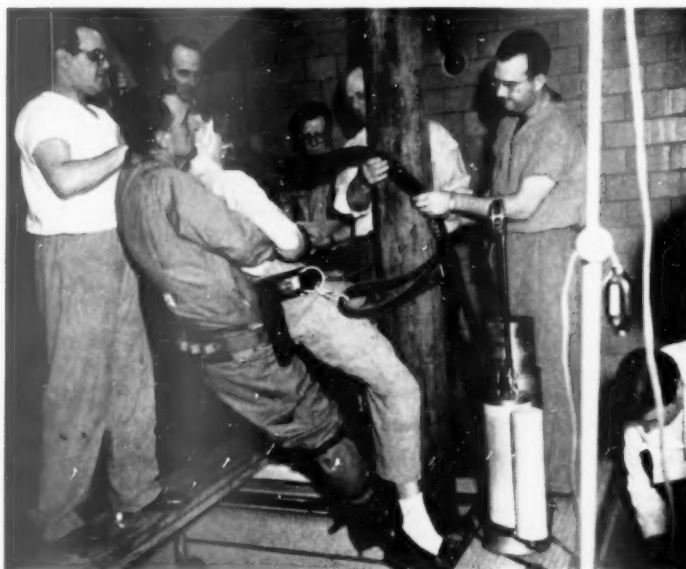
The ventilatory studies were conducted by staff members of the University of Illinois Medical School, using normal adult male volunteers rendered totally apneic

with barbiturate-curare mixtures. Technical assistance and linemen to perform the pole-top maneuvers were furnished by the Commonwealth Edison Company. Blood oxygenation was not studied because of the dangers involved in keeping apneic individuals in a vertical position for the length of time required for accurate determinations.

Experimental methods and techniques used have been previously described by this group of investigators.^(1,2) Prone methods included in the study have been well documented.

Pole Top Methods Studied

The standard pole-top method and five push-pull modifications are described herein. All but the Karpovich-Hale Bear-Hug, Arm-Lift Method were included in the study. Omission of this method was due to lack of knowledge of its development. The three Commonwealth Edison Company modifications will be referred to by their descriptive terms, Double-Rock, Single-Rock, and Forward-Rock. The Public Service Company of Indiana modifications will be referred to as the Arm-Grasp Method.



Experiments in pole-top arm-lift resuscitation methods being performed on totally apneic anesthetized-curarized subject.

POLE-TOP ARM-LIFT METHOD
(Double-Rock Variation)

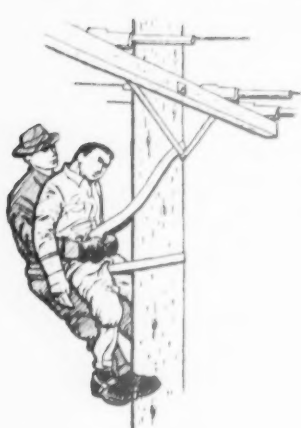


Figure 1—Expiration phase



Figure 2—Expiration phase



Figure 3—Inspiration phase

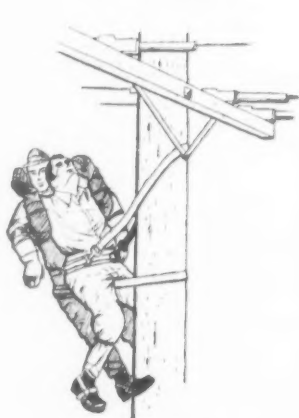


Figure 4—Inspiration phase

Standard Pole-Top Method

After examining conditions and satisfying himself that artificial respiration can be safely administered, the rescuer climbs the pole to the victim as quickly as possible. After clearing him from electrical contact if necessary, he lets the victim hang from his safety strap, alongside the pole. Then he secures his own safety strap around the pole and proceeds upward, keeping his safety strap between the victim's legs, until the victim is straddling the strap.

Next he encircles the victim's waist with his arms, placing both hands on the abdomen. thumbs

below the lower ribs, fingers touching. With his arms and hands, he compresses the victim's abdomen in an upward motion. At the finish of the stroke, the hands are cupped with the fingers depressing the abdomen under the rib margin. The pressure is then quickly released and reapplied at a frequency of 12 to 15 times per minute, until the victim revives or is to be lowered to the ground.

Double-Rock Modification (Figs. 1-4)

The rescuer proceeds and places the victim astride his safety strap as for the standard pole-top method. While compressing the victim's abdomen, using standard pole-top

technique described above, he augments this expiratory phase by rocking the upper part of his body backward with the victim. He then releases the pressure, rocking forward to the rest position.

Then the rescuer moves his hands upward over the victim's chest and hooks his arms under the victim's armpits. He then rocks backward again, simultaneously drawing his arms upward and backward. This lifts and stretches the victim's arms, thereby expanding the chest and producing active inspiration. The complete cycle is repeated 10 to 12 times per minute.

Single-Rock Modification

This modification is performed in the same manner as the double-rock except that the rescuer rocks backward only on the arm-lift or inspiratory phase. During the compression or expiratory phase, he maintains the upright position of the standard pole-top technique.

Forward-Rock Modification

This modification is also the same as the double-rock except that on the abdominal compression, or expiratory phase, the rescuer rocks forward instead of backward in an attempt to increase expiration.

Arm-Grasp Modification (Figs. 5, 6)

This method is similar to the double-rock technique. However, at the beginning, the rescuer grasps the victim's wrists with his hands and retains his hold during the entire procedure. (He can grasp the victim's right and left wrists with his right and left hands respectively, or he can cross the victim's arms and grab the left one with his right hand and the right one with his left hand.) He applies compression by pressing the victim's hands against the abdomen. Active inspiration is obtained by raising the victim's wrists up and drawing them backward.

Bear-Hug Arm-Lift Modification (Figs. 7, 8)

In this method, the rescuer places the victims in the straddle position as with the other methods. He produces active expiration by embracing the victim with both arms around the chest and applying pressure on the chest with a squeezing hug. Active inspiration is produced by the rescuer discontinuing the chest pressure, spreading his arms slightly, moving them upward, and lifting the upper arms of the victim to at least a horizontal position.

Results

The mean values of pulmonary ventilation obtained with the various modifications studied are given in Table I, and Fig. 9 (Bear-Hug Arm-Lift Modification not included for reasons previously stated). They show that the addition of an active inspiratory phase to the standard pole-top technique gives a push-pull method which is $1\frac{1}{2}$ times as efficient in pulmonary ventilation and produces results within the range obtained by prone push-pull methods. Only the Forward-Rock Modification failed to achieve such results. Respiratory values obtained by Karpovich and Hale on non-apneic volunteers indicate like results from the Bear-Hug Arm-Lift Modification.

There were no significant differences in pulmonary ventilation produced by the Double-Rock, Single-Rock, and Arm-Lift Modifications. Questioning of the linemen performing the modifications indicated that the arm-grasp technique was the most difficult to perform. It was a bit awkward to get good abdominal compression while grasping the victim's wrists. They found it more tiring than the other modifications and difficult to maintain a good grasp during the arm lift. The linemen's observations were confirmed by the respiratory graphs. The need for obtaining new and firmer holds on the wrists because of slippage, manifested itself in numerous deviations in the breathing curves. This was not true of the other three modifications which gave smooth reproducible curves.

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POLE-TOP ARM-LIFT METHOD (Arm-Grasp Modification)

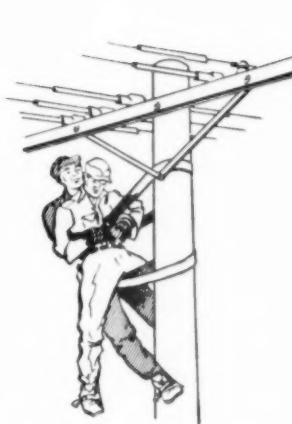


Figure 5—Expiration phase

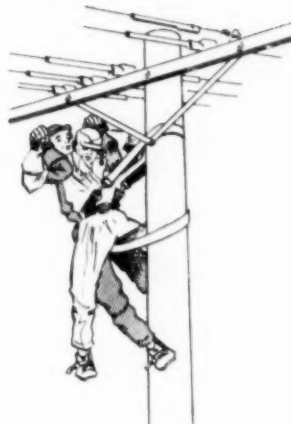


Figure 6—Inspiration phase

BEAR-HUG ARM-LIFT MODIFICATION (After Karpovich & Hale)



Figure 7—Expiration phase



Figure 8—Inspiration phase

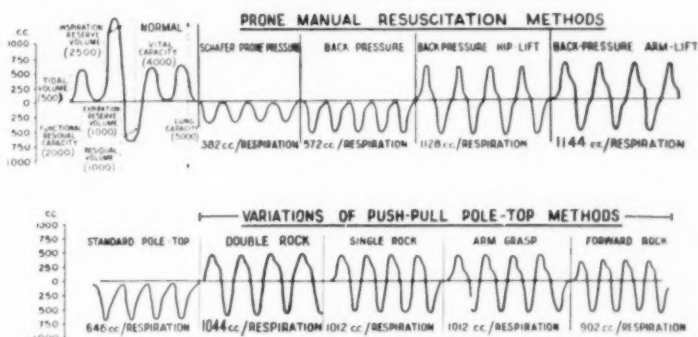


Figure 9. Respiratory graphs of various methods of artificial respiration. (After Gordon et al)

Beyond Wages

From the Diary of an Industrial Physician

By Dr. H. P. DASTUR

"MONEY makes the mare go." This is not always true. Other incentives sometimes exert a greater pull.

Kondia came to the dispensary with a tiny cut on his right forefinger. After his wound was dressed he was advised to return to work. He pleaded his inability to do so because of the pain in the finger. He was given the benefit of doubt. Next day he advanced the same plea. When told that there was no sense in his losing his wages unnecessarily, he retorted he was no fool to let go good money in these difficult days.

Despite all persuasion this went on till the fourth day when I gave him an ultimatum of reporting him to his supervisor as fit for work. This brought out a fit of tantrums from him. "No peace at home, no justice here, then how the devil is one to live?" he cried out. He threw a few abuses at me and left the dispensary in anger.

His remark, "no peace at home," made me feel that there might be more behind his attitude than was apparent, especially as I knew him to be a good, steady worker. So I called his workmate who was also his neighbor and asked him if he could throw any light on Kondia's strange behavior.

It turned out that Kondia's wife had two strings to her bow—her husband and her work. She was so happily adjusted with her work that she just would take no notice of her husband when all was well with him. At the same time she was so genuinely fond of him that she would leave her work and shower all her attentions on him if there was the least thing wrong with him.

Evidently in Kondia's balance her attentions weighed more than the combined wages of his wife and himself. I called his wife and informed her of the tricks her husband was playing on me to win her attentions. She felt flattered and Kondia went back to work.

Here is a neat little problem for economists who say that psychology is none of their concern. But there are others, and they are growing in number, who claim that economics is a science of human behavior and not a system of pecuniary logic. What needs more thinking than the price on the market, is who makes the price and why.

Since this experience I think twice before branding any one as a malingerer. I do not think

Kondia feigned pain without feeling it. The behind the scenes interplay between body and mind is intimate. It is possible that his emotional disturbance successfully worked upon his nervous system to develop a functional pain, and the tiny cut pulled the trigger and localized it in the finger. I realized that medical certification is as much a human problem as technical.

I also grew suspicious whether all economic grievances of workers were truly economic. Some of them may be a subtle though futile effort to satisfy emotional needs. Human nature is so complex that workers may easily misconstrue an emotional need as an economic one. Or even when they recognize a need as emotional, social taboos may prevent them from expressing it openly. Thus frustrated, they may be tempted to project their frustrations on something outside them, and wages, bonuses and similar other economic issues which can be weighed and measured come handy.

But money is no balm for loss of self-esteem, or wounded pride. That probably also explains the bewildering spectacle in some cases or recurring adjudications on economic issues following on top of one another and settling nothing permanently.

* * *

Another example where emotional needs and their satisfaction got preference over material welfare and security is the case of Mary, a factory girl, literate, about twenty years old, living in a one-room tenement with her widowed mother and supporting her. She used to give her whole

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DR. H. P. DASTUR is Medical Officer, Tata Industries Limited, Department of Industrial Health, Bombay, India. This article appeared originally in the *Proceedings of the Society for the Study of Industrial Medicine*.

This I Believe . . .

By NED H. DEARBORN

President, National Safety Council

EDITOR'S NOTE: Ned H. Dearborn, president of the National Safety Council, was one of the outstanding Americans asked by Edward R. Murrow, distinguished news analyst and commentator, to state their personal philosophies of life. These statements were used by Mr. Murrow in his network radio program, "This I Believe," which is broadcast over 200 U. S. Stations and 140 foreign stations. The faith in people expressed by Mr. Dearborn in his personal philosophy reflects so closely his conviction that the public will one day solve the accident problem that his statement is presented here in the hope it may help inspire all of us to quicker action.

THE last four and a half centuries, known as the Modern Age, mark the growing importance of the sciences, of rational thought based on demonstrable facts, and, as discovery and invention advanced, on a relatively new concept—progress or dynamic growth.

My experience is largely limited to western civilization—a world of diminishing superstition, legend, and tradition. While both experience and formal education have conditioned me to modern logic I find it insufficient to sustain me in the many opinions, conclusions, and practical decisions incident to normal living. So faith became a necessary and comforting complement to rational thought.

What is the meaning of faith? There is no simple answer that is accurate and all-inclusive. As a boy I had a wonderful Sunday School teacher in the Protestant country church I attended who was a saintly woman. She had a profound and moving faith in her Christian God. It was my good fortune to have the friendship of a Roman Catholic nun in Buffalo, New York. She too was a saintly woman sustained by unshakeable faith in her Christian God.

There are other faiths of compelling force. One is faith in people. I believe that there is more good than evil in human beings. Hence, I have great faith in democracy. I hesitate to use the word democracy because its meanings have been so distorted. But here again I have faith that the true meanings of democracy will in time become clear. And thus by implication I have expressed faith in time itself.

There is faith in the basic values of home, family, and loved ones. We all want and need affection, the comforts of pleasant companionship, the recognition of respect, the quiet shelter of home

"be it ever so humble," and we want to be wanted. These values in turn provide sources of faith that strengthen us for the outside struggles, the despairs and joys, the disappointments and assurances of life.

There is also faith in one's self. This faith should never result in arrogant self-confidence or in personal conceit. Intelligent, self-analysis will forestall either error. Constant vigilance, however, is required to retain true humility. This shouldn't be difficult if we see ourselves in proper perspective. I am *one* among the countless billions of the past, present and future. I am scarcely discernible in the midst of universal vastness. But I am *one* and my faith, I pray, carries me on to tireless efforts to add something worthwhile to life no matter how *relatively* small it may be.

I have faith in the future. The present state of the world—the fearsome conflicts among religions, social philosophies, economic theories, political goals, and personal ambitions—calls for faith unlimited. This world is blessed with many people of unimpeachable integrity and great intelligence. I have faith that when crises reach their zenith here and there, these people will emerge to points of saving leadership. History justifies that faith.

Finally, I have faith in faith. It is the one sure anchor in stormy weather. The winds may blow, lightning flash, thunder roll, and the rains fall but faith in faith reminds me that one day the sun will shine again, the stars will reappear, and the soothing breezes of day and night will once more prevail.

There are other faiths, e.g., in reason, in lofty emotions, in high ideals, in permanence of true values and high principles, in education, in ethics—but they are all rooted in faith in people.

I have tried to be illustrative rather than exhaustive. I cannot point to any one faith as most important to me. They are so interrelated. It is all of them, and now and then, one of them. My faith is my experience with the unknown and the unexplained.

I recently found an ideal for faith. On February 6, 1939, when the lights were going out all over the world, Mahatma Gandhi said, "My faith is brightest in the midst of impenetrable darkness." This is an ideal I have long sought and shall always seek.

Copyright, Help Inc., 1953

Since the Sunbury plant began operation in 1942, employees have won these awards. They include: 7 first-place awards in annual contests of Metals Section, NSC; 5 NSC Awards of Honor; U. S. Dept. of Labor Certificate of Safety Achievement, and Westinghouse Achievement Award in Accident Prevention for 1951. They make an imposing display in the plant cafeteria.



Topping the Industry's Record

Engineering each job for safety, plus thorough training, put this plant in the lead in the electric equipment industry

THE all-time safety record for the electrical equipment industry—15,040,000 man-hours without a disabling injury—really started before the plant went into operation in 1942.

When production lines were being laid out for the new Television-Radio Division plant at Sunbury, Pa., Westinghouse already had many years of experience in accident prevention. So when assembly benches were being located, when machine tools were being placed, when conveyors were being arranged, and countless other operating details were being planned, the workers' safety

and well-being were prime factors in placement.

Manual lifting and handling were reduced to a minimum between the receiving dock and the shipping platform. Guards were put on machines. Interlocks were provided for test operations. Special dollies were devised for handling parts, sub-assemblies and complete assemblies. The accompanying illustrations show only a few of the devices that make work safer.

Once the plant got into operation, the plan for safety education and training was put to work. A safety committee was formed, its

membership including the manager of manufacturing, two general foremen, one industrial relations manager, one industrial relations supervisor, and the captain of the plant police.

From the beginning, the committee has concerned itself basically with the teaching of good work habits. This has been accomplished largely by appealing to the employee's pride in a good plant safety record—a record that can come only as a result of good work habits.

Another phase of the safety education program is carried out by trained safety observers. As these



Safer than icy sidewalks. Non-skid treads between rollers on a conveyor make needed inspection operations safer.

observers walk about the plant they are constantly on the lookout for potential accident hazards. When one is spotted it is reported to the foreman in charge of that section and steps are taken at once to correct the situation.

The printed word is also used extensively in the program. Through safety stories published in the monthly plant section of

Westinghouse News and through safety messages and bulletins posted on boards strategically located throughout the plant, safe work practices are brought constantly to the worker's attention. A recurring hazard—horseplay and running in the plant—gets plenty of attention from the committee.

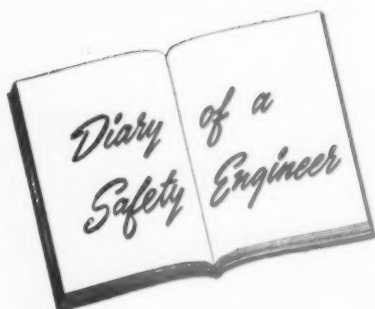
—To page 92

Conveyor gate stays up or down. It is held open, as shown in the illustration, by counterweights. When closed, it is held by a combination of latch and springs. Added safety feature is spring-actuated stop at conveyor open end. When gate is raised, stops come up automatically to keep cartons from falling to floor. When gate is lowered, stops drop down below top of rollers.

Up or down, it's safe. When the expanded metal hinged quarter-section of the safety cage for this wire-cutting and stripping machine is raised to the "up" position, power is cut off by means of an interlocked switch. Operator can then unload and load machine safely.

When the safety cage is lowered to the "down" position, power is turned on by the interlocked switch. The operator can reach under the cage to remove tote pan of cut and stripped wires. If she tries to reach farther, her arms raise the hinged quarter section and power is shut off by interlocked switch.





I, Machiavelli

(Fiction)

By BILL ANDREWS

April 2, 1953

THE WET SNOW of last week's blizzard made even the plant yard look pretty. The stuff stacked there made white mounds and pyramids and towers. But the sun that shone yesterday has stripped off the snow coating, and from the beauty emerges the most God-forsaken, dreary, crummy bunch of junk that ever disgraced a modern industrial plant!

I don't get paid for beautifying the grounds of the Jackson-Barnes plant. But ugly does as ugly looks, and that yard is not just a bunch of junk. It's a first-rate collection of accidents waiting to happen.

We've been lucky lately. There hasn't been a single millwright hurt while prowling around over there in the rustier end of the yard to look for spare heavy machine parts. We haven't had a watchman break a leg in quite a while. And the apprentices I saw playing catch this noon hour with old castings didn't happen to bash their faces in. We haven't even hurt one

of the neighbor kids, who can always find a hole in the fence and regularly come treasure-hunting in our junk pile.

So, if I go shouting to Larson for a big cleanup campaign in the interests of safety, he just might ask me how much it has cost us, in compensation and medical costs, not to clean it up this last year. And I'd have to answer, "It hasn't cost us a nickel that way." And then I could yell myself blue in the face about what might happen, and he would weigh the cost of a good cleanup job against my fears, and he might decide that it wasn't a good investment.

No, this is no time for the simple and direct approach. The situation calls for conspiracy, conniving, the playing upon assorted motives in assorted people. This is a situation in which it is up to me to play the Machiavellian politician, getting support for my project by expounding its benefits in things that don't concern or interest me. And that is just what I've spent the

day doing. Here are some sample dialogues:

Scene: Sales manager's office.

Sales Mgr: Hiya, guy, how's the accident business?

Me: Quiet. How was Florida?

SM: Fine. (Follows five minutes of explaining how fine).

Me: (Smiling as if I made enough money to take Florida vacations) Great stuff. Does a guy good to get a winter break. By the way, got any big customers coming this way soon?

SM: Sure have. The Leton outfit is sending a couple of engineers, and MacDonald's executive VP, old Bill Denton, you know, is going to spend part of next week with me.

Me: Good. Look, that color conditioning deal in the power plant looks right nice, and it's sound and right up to standard. Might be a good thing to show 'em.

SM: You bet. And like I was telling you, the day we went to Hialeah . . . (five more minutes

spent proving something about horse racing).

Me: Well, I'd better be rolling. (I stand, go to the door, open it, then, making like I had just remembered something . . .) By the way, better route your visitors away from the yard to the east and south. It looks lousy, and it'll give 'em a bad impression of the plant. (I go out).

* * *

Scene: Chief Millwright's office.

Chf. Millwright: Now what, safety man? Haven't had an accident, have we?

Me: Nope. Just wanted to get a tip from you about how you boosted up that bowling average of yours. That backup ball you throw, how do you hold it?

(Follows ten minutes of detailed bowling instruction, in which he didn't remember that I have a better average than he does. Then, after suitable small talk, I get up to go, get half way out the door, and then stop as before to say, as an afterthought, what I came to say.)

Me: Saw some of your guys digging an old shaft out of the yard. Give it a double check, will you? Some of those were badly flawed when they were dumped.

CM: Huh? Flawed you say? But the junked stuff is supposed to be piled over by the transformer house. We got these from my stockpile over by the loading dock.

Me: Sure? I've seen some of your guys prowling the whole yard looking for things.

CM: You're darned right they do. Honest to God, man, we waste more time looking for junk in that yard. Everything get's all messed up, and we can't find anything. You know, we even found a forging that weighs 300 pounds off behind the spur—a hundred yards from where it's supposed to be, and buried under some scrap lumber.

Me: It's sure a mess. Why don't you get maintenance to clean it up?

CM: Think I'll agitate for that, and thanks for the tip, I'll double check on that shaft. (I depart,

feeling like a Shakespearean villain.)

* * *

Scene: Maintenance Superintendent's office.

Me: Well, it's spring cleanup time again.

Maint. Supt.: Who's got time to worry about that? With labor short, and budget cut, we'll be lucky if we get time to sweep the front steps.

Me: I've got a hunch you could wangle some extra help.

MS: How?

Me: Well, the sales department has some VIP visitors coming, and Maxson was saying to me today that the yard looks like hell. He's probably going to put the squeeze on you for a cleanup there.

MS: Put the squeeze on me! Blast it, man, with the amount of help I've got. . .

Me: It doesn't put you on the spot; it help's you. Play it right, and you'll get some support from Maxson. And, by the way, the millwrights are beefing too. Go talk to Smitty, and he'll give you some more arguments for your stand.

MS: You may have something there. And can you do anything about the machine shop? They're getting awfully lax about cleaning up around the machines. My guys aren't supposed to do everything.

Me: You bet I will. I've got some new spring cleanup posters, and they'll go into the departments next Monday.

MS: Good, but posters don't clean no floors. Maybe if I saw the super and told him about the visitors and the millwrights, and what a mess things are. . .

Me: You do that, boy. Beat 'em to the punch. Show you're on your toes!

(On this joyous note of inspiration, the scene closes.)

* * *

There were some other visits—the warehouse super, the plant protection force chief, the fire marshal, the boss carpenter. I spent, in fact, a good half day sowing the seeds of discontent. The one major office I didn't visit was the



Front Office. I'll just sit back and wait and see.

April 3

I didn't wait long. The plant
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Facts and Fancies About

Safety Supervision

By **EARLE S. HANNAFORD**

Management operates in a world of cold, hard facts. Let's remember that when we're trying to sell our safety program

WHENEVER safety directors and safety supervisors get together, sooner or later, the talk gets around to the old chestnut that is the nightmare of the safety man, "How can I get and keep the backing of top management." All too often, we hear that peal of doom, "He's a damn good safety man but I hear his top management doesn't give him the necessary backing."

Before we throw this down in despair and pick up our crying towels, let's see if there is some slight possibility that we safety men might be a little at fault when higher management doesn't greet our ideas, plans and programs like prodigal sons.

First off, we might as well reconcile ourselves to higher management's living in a world of facts—cold, hard facts. In every problem that comes before them, they have to shuck off the husks and Fancy Dan stuff and get down to cases in terms of such things as paying a dividend and calculated risks in a field where second guessing isn't much good because you just aren't there to do it.

It isn't that they aren't sympathetic to safety; they are. However, they have to be approached through the same reasoning methods when it comes to safety as they use on their other problems—

that is, unless we want to do it the hard way. Remember, even though safety is the big problem to us—it is but one of the many vital problems facing higher management.

Maybe we fail to sell the need for active, rather than passive, backing of safety by higher management because we *don't make contact with them* in terms they really understand. Of course, no one can deny that safety has many intangibles in it nor that you can't actually count up the lives saved and the accidents that didn't happen. We don't need to do that anyway, for higher management knows these things as well as we do.

It's not the lack of hard facts of a statistical type that sinks us because, somehow, safety can't always work out its results, needs and programs in terms of them alone and everyone knows it. So what's the pitch? Could it be that good safety men are usually so sold on safety themselves that it gets to be a philosophy, yes, a religion—a way of life? Do they lean on the emotions a little too much? Because attitude is so important in safety, it's natural that we deal in it heavily, and we should. However, let's not get so carried away with it we rely on it and use it when we shouldn't.

Right Facts, Poor Reasoning

Recently the writer sat with a couple of higher management people who were sitting in at a meeting of safety men. The safety men came from various sections of the country and were discussing a vi-

tal safety policy recommendation. The facts were placed before them and a good discussion followed and the group seemed ready to approve a plan which was based on the facts. Suddenly, a safety director made an emotional plea for the opposite—the discussion veered and a quick vote resulted in endorsement of a policy obviously in error and which later had to be reversed.

One management man was heard to remark "If the conclusion had resulted from reasoning based on the facts but the facts were wrong, it might be excusable, but when the facts are OK and the reasoning fallacious—that's inexcusable."

Watch Your Emotions

Sometimes safety men get so wrapped up in the right and wrong of things that they follow "Fancy Dan, the Fallacy Man" instead of using the common sense "Honest John reasoning" that made them good safety men in the first place.

Because of the factual atmosphere they live in and breathe, higher management or, for that matter anyone else who can tell a fallacy from a fact, instinctively shrinks from anything that smacks of poor reasoning. Safety deserves our best because it produces the best. However, there is a big difference between presenting even an intangible problem in a well-reasoned fashion without fallacies and presenting it in a poorly-reasoned fallacious manner. Higher management has solved and will always have and solve problems which are intangible. That doesn't

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worry them but poor reasoning does.

It's always hardest to stick to plain, direct reasoning when we talk or write about things we feel deeply about—things close to us. That's when we have to be sure our emotions—yes, even our prejudices—don't make us use Fancies instead of Facts. There are simple tests and rules that enable us to check our reasoning and to catch up with fallacies. Selling higher management is important—getting their backing is vital and to do it we must use their approach to problems. However, the use of good reasoning and making decisions based on facts, not fancies, is vital in all the activities of a safety man. His ideas and plans are his scalpel. But a wrong move by a safety man can affect many lives while a surgeon works on one at a time.

Steps in Solving Problems

The first step to good logic is knowing and recognizing the more common fallacies. It's easy to learn them but they are chameleon-like in that they always turn up in different phrasing and dress. This brief article cannot cover them but, if you are interested, the Director of Industrial Training of the National Safety Council will be glad to send you a description of the more common fallacies in reasoning which the writer is providing.

Recognition of fallacies and avoiding them by substituting good valid reasoning is only the first step to good logic—the type of logic that higher management deals with in all its problems including safety. Let's look into how we go about doing an "Honest John" job of thinking out a problem. As recently as only a few hundred years ago, men were actually unable to separate their facts from their fancies. Less than three hundred years ago, facts and fancies were still pretty scrambled. Until Bacon and Spencer put into words the normal thought process and developed it into what we call the scientific

That Lonesome Road

MAN, I feel like a guy up a creek without a paddle! We foremen go to these safety meetings every month, and all we hear is, *report this, inspect that, train him, investigate that, clean up this, watch that!* When do we do any work?

At the same time, ten months ago I *inspected* the department and reported that some loose screening needed fixing. What happened? *Nothin'!*

Eight months ago I *investigated* an accident and suggested we have some scrap containers made by maintenance and put in each department. What happened? *Nothin'!*

Three months ago I asked for that rough piece of floor over by the bench grinders to be patched up. What happened? *Nothin'!*

I've been on one way streets in my life but this is really a dead-end. All I get is a big *nothin'* every time I figure it halfway decent for me to open my face on this safety thing. It seems to me that the least they could do would be to tell me I was stupid, or something. My kid gets better recognition when he writes to Santa Claus.

We foremen get a big bunch of garbage thrown at us, but when we crawl out from under and do something, all we get is *nothin'!*

What's the use of reportin', inspectin', investigatin', trainin', etc., if *nothin'* is done with what we turn up?

Man, I feel like a guy up a creek without a paddle!

ROBERT D. GIDEL, Senior Engineer,
Industrial Department, National Safety Council

method, "Honest John Good Reasoning" was at the mercy of "Fancy Dan, the Fallacy Man."

Actually the procedure for solving problems in a reasoned, logical manner isn't so difficult. No doubt, we all know it, but sometimes we seem to forget to use it when we need it the most—so let's review it together. The ability to plan and think is the most important tool of the safety man. There are four things "Honest John" says to do in the day-to-day thinking out of a problem:

1. Recognize, isolate and define the problem. All too often we try to solve the problem before we know its nature and scope. Sometimes we even try to solve two or three problems at once instead of one at a time.

2. Assemble the known facts applying to the problem and evaluate them. It's here in the evaluation that we have to be sure that no "Fancy Dan" fallacies creep into our thinking for it's all too easy to let our emotions and our strong desire to get the right answer color our thinking.

3. Make a trial conclusion. If necessary, change, modify or vary it until it is the most logical and suitable solution you can get in a reasonable length of time or the time available.

4. The final conclusion is then set up based upon the results of the trials and tests previously made.

Sure, it's simple! Old stuff, too! How many times, though, do we listen to "Honest John" and use it consciously in our day-to-day problems? Not too often, for we tend to short cut, substitute and omit. Then we are put out when someone who is using it to check and analyze our stuff won't buy it. Actually, it's no different from a craftsman using the wrong tool and botching the job or getting hurt. "Honest John Good Thinking" calls for using the right tools too, even though they can't be held in the hand like a wrench or a steering wheel.

Anyone skilled in good thinking and planning views a poorly

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North end of the Santa Fe Corwith freight house, Chicago.

The Freight House Goes Modern



A device known as the "Santa Fe pin" is raised or lowered into the moving chain of the Towveyor by a foot pedal on either side of the truck.

KEEP IT MOVING! That is the motto of the modern freight station. If movement of goods in transit comes to a halt, the result is congestion, confusion, delay and hazard.

Quick handling and fast dispatching of less-than-carload lots call for sound planning, modern freight-handling equipment and an efficient communication system.

Santa Fe's new Corwith freight station, located at 17th Street and Hamlin Avenue, Chicago, incorporates the latest developments. Gone is the old wooden freight house with its narrow platforms and power trucks, tractors and trailers, and two and four-wheeled hand trucks.

Entering the station, the visitor notices long trains of four-wheel trucks moving at uniform speed without visible means of propulsion. This is the Towveyor system, designed for this installation by the Santa Fe engineering staff and the Jervis B. Webb Company of Detroit. It consists of a roller type chain installed in the floor of the platform with a special slot opening. Built into the chain 15 feet apart are catch devices that engage pins lowered from the trucks.

The entire system has a capacity of 500 four-wheel platform

trucks. Speed of the roller chain can be varied from 110 to 160 feet per minute. It is in constant motion. It operates on two separate circuits. One circuit serves the outbound tracks; the other the inbound tracks.

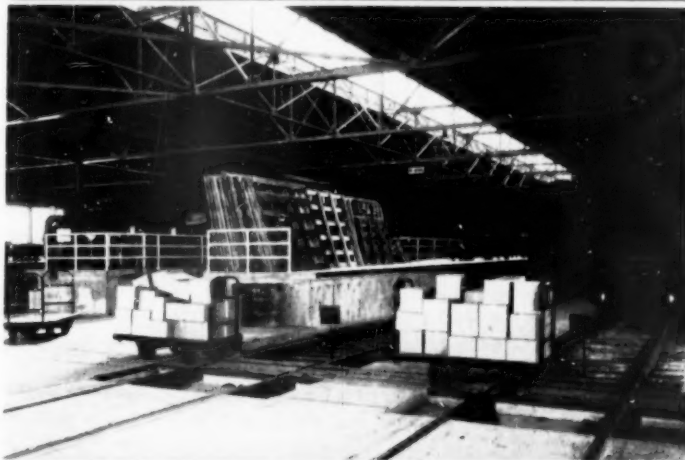
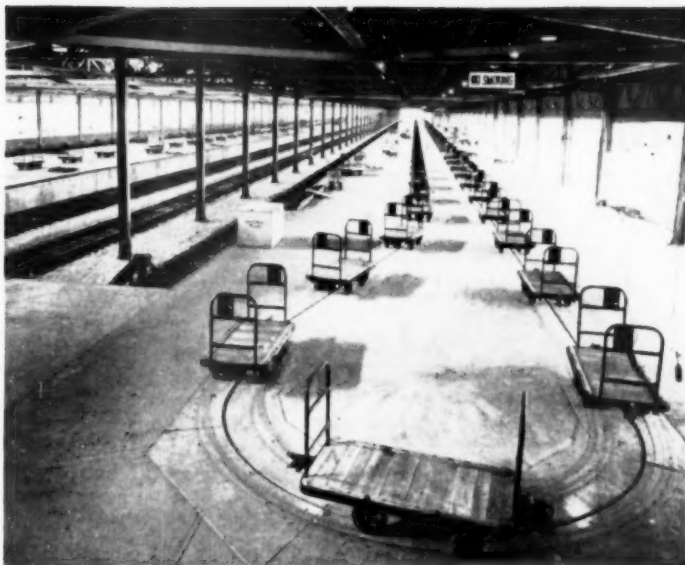
Plenty of room is essential in a freight station where shipments must be gathered, sorted and checked. The Corwith Station is 1,325 feet long and 201 feet wide. The platforms are wide concrete structures directly adjacent to four of the six rail tracks in the station. The second and fifth tracks are center tracks and can be reached easily by loading or unloading through cars on adjoining tracks.

Roof structure has been designed and built to require a minimum number of supports. This leaves all platforms clear for free and easy loading and unloading operations.

The six tracks accommodate 160 box cars. Tracks, as well as platforms, are under one roof, permitting operation under all weather conditions.

Installations of mechanical conveyor systems in railroad freight houses are not numerous and prior to this were of the overhead type. Disadvantages of this type were the limited overhead space between the truck bed and the conveyor chain, also the endless hook-

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TOP TO BOTTOM:

Round and round go the trucks on the Towveyor system. An underground endless cable tows a car by means of a gripping device manipulated by the operator. Loading and unloading is quick and orderly.

Loaded trucks being transported across railroad tracks. This type of operation eliminates bridging across tracks and disconnecting chain each time cars are moved in and out of the freight house.

Plenty of platform space is provided for freight handling. When the truck reaches the car of the block number corresponding to the number of the shipment it is removed from the line. Platform foreman, at right of car door, checks details of shipment with checker in central bldg.

THE SAFETY VALVE



Nothing better is close to me.
—TERENCE

Divergent Philosophies

Thomas Babington Macaulay probably never heard of "Safety First," but he expressed some thoughts that get right down to its basic principles. Here is a thoughtful passage from his "Critical and Historical Essays":

WE HAVE SOMETIMES thought that an amusing fiction might be written in which a disciple of Epictetus and a disciple of Bacon should be introduced as fellow travelers. They come to a village where smallpox has begun to rage, and find houses shut up, intercourse suspended, the sick abandoned, mothers weeping in terror over their children.

The Stoic assures the dismayed population that there is nothing bad in the smallpox, and that to a wise man disease, deformity, death, and loss of friends are not evils. The Baconian takes out a lancet and begins to vaccinate.

They find a body of miners in great dismay. An explosion of noisome vapours has just killed many of those who were at work; and the survivors are afraid to venture into the cavern. The Stoic assures them that such an accident is nothing but a mere *strange happening*. (Translation of a Greek word.) The Baconian, who has no such fine words at his command, contents himself with devising a safety lamp.

They find a shipwrecked merchant wringing his hands on the shore. His vessel with an inestimable cargo has just gone down and he is reduced in a moment from opulence to beggary. The Stoic exhorts him not to seek happiness in things which lie without himself, and repeats a whole chapter of Epictetus. The Baconian constructs a diving bell, goes down in it, and returns with the most precious effects from the wreck.

It would be easy to multiply illustrations of the difference between the philosophy of thorns and the philosophy of fruit, the philosophy of words and the philosophy of works.

Undiscouraged

CONTESTS have often been criticized because, it is claimed, they put too much emphasis on winning awards, that they place the letter of the law above the spirit.

But not all companies have that attitude. Recently a plaque awarded Green Bay Box Company

was returned with a sorrowful letter from Safety Director Fred Schils.

When the company's report for 1952 was prepared, it showed no disabling injuries. But on February 16, on a case that was reopened, it was found that an employee had a simple hernia attributed to an injury that occurred on the last day of the year.

"We regret that we have to return it," writes Mr. Schils. "We can only say that we will try just a little harder in 1953 to get it back."

The company has won something more valuable than a trophy. Employees will have increased respect for the safety program, and we have no doubts about them putting forth an extra effort this year.

The Life You Save

Recently this department referred to a Kiwanis Club adaptation of the Council's slogan, "Take the Family to Church Sunday—The Soul You Save May Be Your Own."

From Korea there have been reports of highway signs saying, "The life you save may be your replacement."

And one reader quoted Norman Ross, WMAQ announcer as having quipped, "The life you save may be *mine*."

In This Issue . . .

MATS, the phonetic nickname of Military Air Transport Service, has a splendid record of world-wide service to our armed forces and to distressed people of many lands. Little known to the public is the ground safety program that has helped to keep these planes flying, often under difficult conditions. Last fall, Norval Burch, associate editor of the News, traveled several thousand miles on MATS planes and visited many air bases to get a first-hand report of their far-reaching safety program. (Page 20)

Recently developed methods have revolutionized the techniques of resuscitation and promise an even greater proportion of lives saved. Newer methods are also being introduced in pole-top resuscitation. (Page 22)

After reading Dr. H. P. Dastur's recollections from his experience as medical director of one of India's largest industries, you will probably realize that workers have much the same emotions and reactions, whether they work in Bombay, Birmingham or Detroit. (Page 26)

If you want to get your plan across, make the other fellow think it's his own idea. This month our fictional safety engineer does it with unsuspected subtlety. (Page 30)

Carman Fish

Safety Leaders of 1952

Winners in National Safety Council's Industrial Contests

A RECORD-BREAKING low frequency rate of 7.18 disabling injuries per million man-hours worked was reported for 1952 by 3,068 entrants in 17 industrial groups in which contests were held.

The combined frequency rate for winners of National Safety Council trophies was 0.91—approximately 13 per cent of the average rate for all contestants.

The companies listed below are those which will receive first place trophies according to the rules of the contest in their own industry. In the Chemical, Petroleum, Printing and Publishing, Textile, Commercial Vehicles, Glass and Ceramics, and Transit contests, first-place trophies are awarded only to the unit operating the largest number of man-hours in case several have perfect records. In other contests, all companies or plants

with perfect records receive duplicate first-place trophies.

In addition to the contests listed here, competitions are also conducted by the Metals Section and the Meat Packing, Tanning and Leather Products Section on a fiscal year basis, July 1 to June 30.

Complete lists of all winners, plus second and third place winners and companies receiving certificates of merit for perfect records, appear in the contest bulletins which are being sent to all participating companies and plants.

Each bulletin also contains a brief analysis of experience in the industry and a coded list permitting each non-winning company to identify its own record and compare it with others.

Following are the first-place trophy winners:

AERONAUTICAL INDUSTRIES

Group A

Hawthorne Aircraft, Inc., Hawthorne, Calif.

Group B

Curtiss-Wright Corp., Electronics Div., Carlstadt, N. J.

CHEMICAL DIVISION I

Group A

Old Hickory Rayon Plant, E. I. du Pont de Nemours & Co.

Group B

E. I. du Pont de Nemours & Co., Toledo Finishes Plant.

Group C

E. I. du Pont de Nemours & Co., Philadelphia Grasselli Works.

DIVISION II

Group A

Merck & Co., Inc., Stonewall Plant, Elkton, Va.

Group B

United States Rubber Co., Naugatuck Chemical Div.

Group C

The Procter & Gamble Manufacturing Co., St. Louis, Mo.

DIVISION III

Group A

Lever Bros. Co., Los Angeles.

Group B

Commercial Solvents Corp., Dixie Chemical Div., Sterlington, La.

Group C

The Buckeye Cotton Oil Co., Greenwood, Miss.

COMMERCIAL VEHICLES

COMMON AND COMMERCIAL CARRIERS

Group A

F. J. Boutell Driveaway Co., Flint, Mich.

Group B

Treloar Trucking Co., Joliet, Ill.

PRIVATE CARRIERS

Union Sand and Gravel Co., Spokane, Wash.

FOODS

DIVISION I

Group A

Pillsbury Mills, Inc., Buffalo, N. Y.

Pillsbury Mills, Inc., Minneapolis, Minn.

Moorman Mfg. Co., Quincy, Ill.

Ralston Purina Co., St. Louis, Mo.

Group B

Waialua Agricultural Co., Ltd. (Castle & Cooke, Ltd., Agents), Waialua, Hawaii.

General Mills, Inc., Vallejo, Calif., Mill.

Spartan Grain & Mill Co., Spartanburg Mill.

Gaines Division, General Foods Corp., Kankakee, Ill.

Pillsbury Mills, Inc., Ogden, Utah.

General Foods Corp., Corn Mill Division, Kankakee, Ill.

Ralston Purina Co., Wilmington, Del., Branch.

Group C

General Mills, Inc., Belmond, Iowa, Plant.

General Mills, Inc., Spokane, Wash., Plant.

General Mills, Inc., Oklahoma City Mill.

General Mills, Inc., Amarillo, Tex., Mill.

General Mills, Inc., Great Falls, Mont., Mill.

General Mills, Inc., Hopkinsville, Ky., Mill.

Ralston Purina Co., Montreal Branch.

Ralston Purina Co., St. Johnsbury, Vt., Branch.

Ralston Purina Co., Wichita, Kans., Branch.

Ralston Purina Co., Stockton, Calif., Branch.

International Milling Co., New Prague, Minn.

Cooperative Mills, Inc., Roanoke, Va.

Pillsbury Mills, Inc., Lima, Ohio.

Pillsbury Mills, Inc., Clinton Soy, Clinton, Iowa.

Pillsbury Mills, Inc., Culver City, Calif.

International Milling Co., North Kansas City, Missouri.

Spartan Grain & Mill Co., Newberry Mill.

Spencer Kellogg and Sons, Inc., Buffalo, N. Y.

National Biscuit Co., Carthage, Mo., Mill.

DIVISION II

Group A

Maxwell House Div., General Foods Corp., Hoboken, N. J.

Group B

Maxwell House Div., General Foods Corp., Houston, Tex.

Continental Baking Co., Youngstown, Ohio.

General Foods, Ltd., Windsor, Ont.

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You Must Decide!

Plain talk for management of smaller businesses

By LEN WALTERS

PROBLEMS in accident prevention, we must agree, are solved only after the facts are recognized and accepted and action is taken. Here is a fact that is known. Plants and businesses with less than 100 employees, are having a serious accident prevention problem.

As a group, smaller plants haven't controlled accidents as well as the larger plants. Yet, it is also a fact that some of the smaller plants have done an excellent job of controlling accidents. What makes the difference?

We asked a group of our loss prevention engineers, who are assigned to work with various types of smaller plants, the question, "What makes the difference?" These men as a group said, "The difference is in the attitude of management of smaller businesses." After exploring the factors of "attitude" developed by them, we produced two discussions which they considered typical. You must decide for yourself whether the problem is honestly and realistically presented.

Typical discussion with management of a "Small Business" having an accident prevention problem:

LOSS PREVENTION ENGINEER: "Mr. Jones, at the time of my last call I made several safety recommendations for your plant and discussed them with you. You agreed they were practical suggestions—but apparently I missed the boat somewhere because your

plant is still having accidents. Can you tell me where I have been wrong in understanding your problems and helping you?"

MR. JONES: "I'm very busy right now so I won't have much time to talk with you. Let's see now on those recommendations—I gave them to the foreman and told him to see what he could do about them. If he didn't take care of them, it was only because he has been too busy with production. We made several changes for that new clutch assembly. I guess a couple of the new men got hurt because they didn't have experience. Joe can't be all over the place at one time—every time he turns his back, something goes wrong. Most accidents wouldn't have happened if the people were more careful.

"You see a small plant just can't spend the time and money that a big plant does. In most cases the big plant has a safety engineer to take care of safety problems. But, around here, production takes up all our time. Competition is getting tougher every day and we've got to keep our costs down. You know I'm as safety minded as anyone, and we're going to take care of everything as soon as we can."

LPE: "Look Mr. Jones, I work for you—you don't have to do anything just because I suggest it. I try to make suggestions which are helpful to you."

MR. JONES: "We are glad to have your help, but, we just can't do all the things you suggest for this small plant. Take that stuff



LEN WALTERS is Loss Prevention Research Manager, Hardware Mutuals, Stevens Point, Wis.

"Too busy for safety"—an attitude too frequently found among small plant foremen. This one is worried about production costs but it hasn't occurred to him that accidents are a cost factor.



Here is a spring arrangement on the door of a fuse box to keep it closed. The maintenance staff (that's him in the cap) devised this one and several other safety devices. He's showing his work to the insurance engineer.



Here is a manager of a plant with 35 employees and an outstanding accident prevention program. His eye protection program is working because he shows a personal interest in securing comfort and protection. Here he is getting employees' comments on plastic goggle frames.

on 'Job Training' you talked over with Joe. We can't spend that much time on training. We've got to tell our people what is to be done as quickly as possible. Every employee has to be able to handle several jobs. A good smart boy can recognize a hazard just as quickly as Joe can. And if there's anything unsafe we want to know about it.

"It's tough for a small plant to have a good safety record. When a big plant has a couple of accidents it doesn't mean a thing. But, if we have two or three accidents a year it's bad. The only thing we can do is keep our people safety minded. Most accidents are the kind we can't do anything about anyhow."

LPE: "Mr. Jones, what kind of help would you like with your safety problems?"

MR. JONES: "Well, I would like to get more printed safety materials that can be handed out to employees. The kind of stuff we can enclose with paychecks—or little booklets that we can hand out occasionally. I think that if we gave employees more things like that, they will become more safety minded."

Typical discussion with management of the small business with a good accident experience:

LPE: "Mr. Brown, I have just finished a study of job procedures on that new operation. I noticed the operator on the second spot welder reaches over the live rollers on the conveyor instead of waiting for the stock to get to the take-off. And some of the parts reaching the cleaning operation still have metal chips on them. You might want to consider eye protection for that job."

MR. BROWN: "Thanks for giving us your observations and suggestions. I'll talk to the foreman

about them when I meet with him this morning. I'll make sure that he is covering the proper procedure for removing stock from the conveyor in his training instructions. It may only be that he has missed an unsafe practice in his follow-up on the training, but I will make sure. We will check back to see if we can get all the chips removed from the parts after the holes are drilled. If not, we will equip the operators on the cleaner with the proper type eye protection. We've got to make sure our procedures, training methods and placement are right on those new operations. We are in our third year of 'no lost time' injuries, and we want that record to continue—it's money in the bank. With the added expense of that new equipment, we've got to do a good job in production. Accidents have never helped keep production costs down."

LPE: "Well, Mr. Brown, many small plant operators don't feel the same way about their accident prevention program. Most of them tell us they don't have the time or money to carry on an organized safety program."

MR. BROWN: "I don't get it! Most big business was small once. A lack of good business system

—To page 111



A prevalent small plant complex—
"We can't do it."

Mechanization of agriculture in the Hawaiian Islands has brought new hazards to workers in the sugar cane and pineapple fields — hazards which are being met by an intensified safety program. Here workers in the cane fields are being fitted with goggles.



Accident Prevention Workshops For Hawaiian Employers

By ALBERT W. HENDRICKSON

HAWAII'S comparatively recent transition from hand labor to one of the most highly mechanized agricultural areas in the world has resulted in an alarming increase in industrial accidents. The introduction of heavy tractors, trucks, tounahaulers, mechanized harvesters, spray equipment and the vast amount of mechanization necessary for scientific agriculture of sugar cane and pineapples has created accident hazards that were not present when most of the field work was performed by hand labor. Swinging a cane knife approximately

10,000 times each day is a hazardous job, but injuries from knife cuts do not often result in fatalities or serious disfigurements. Accidents with the huge mechanical contrivances now used often do.

In spite of the fact that Hawaii's management has introduced safety practices with its mechanical equipment that were designed to keep accidents to a minimum, the number of industrial accidents increased 17.5 per cent in 1950 over 1949. Although the total number of manhours worked in 1950 was substantially greater than in 1949, the increase was alarming percentage-wise and indicated need for greater efforts in industrial safety. In 1951 the number of disabling injuries again increased

substantially. In that year, the Territory paid out over \$1,300,000 in workmen's compensation claims alone. Conservative estimates indicate a total over-all cost of at least \$6,000,000 for that year.

In the fall of 1950 the Territorial Department of Labor and Industrial Relations held a "Governor's Safety Conference," attended by about 1500 people. In the summer of 1951, the Governor appointed a Safety Advisory Council. This group is made up of members of industry, labor and government. Their primary function is to advise the Governor on matters pertaining to industrial accident prevention.

The big sugar and pineapple agencies showed astounding varia-

ALBERT W. HENDRICKSON is with Hawaii Employers Council, Honolulu, T. H.

tions between frequency and severity rates among the various operating companies in the same industry. Some companies that had embarked on comprehensive safety programs had reduced their frequencies to one-tenth of what they had been not many years before.

Logically enough, it was concluded that if organizations with relatively poor experience could be given the necessary know-how, substantial dollar savings could be made, plus considerably less human suffering. Consequently, the interested executives decided to set up a series of accident prevention workshops for management to be held on each of the major islands. These Workshops were sponsored jointly by the Hawaii Employers Council, representing 185 employers, and the Territorial Department of Labor and Industrial Relations.

The Workshop organizing group selected outstanding safety engineers and members of the Territorial government and management as key speakers. To emphasize the role that the "Big Boss" plays in accident prevention,



"Miss Hawaiian Islands" added interest to the employers' work shop meetings by modeling protective equipment.



In the fields, eyes must be protected against impact, dust and glare.

a manager who had obtained good results keynoted each meeting. At the first meeting, held in Honolulu on March 7, Cyril Ainsworth, technical director of the American Standards Association, gave the principal address. Although these workshops were designed primarily for management personnel, a labor representative spoke at each conference so that the conferees would have the benefit of labor's views on industrial safety.

Panels were set up to analyze the material which had been presented at the morning session and to further explore various aspects of the problem. The moderator was either a qualified safety engineer or a training director who had had considerable experience with safety work. The panels consisted of safety engineers, training men, and line executives. Prior to the workshop, the moderator had several meetings with members of the panel so that they would be prepared to answer questions and further develop the constructive approach to aspects of accident prevention work. In developing the conference, a member of the Hawaii Employers Council held planning meetings with key management people on each island who

collaborated in organizing the program.

The agenda for the morning session of the Honolulu workshop which was typical of those that followed is shown below:

9:15 a.m.—Welcome to Workshop, Staff Member, Hawaii Employers Council

9:25 a.m.—Management Looks at Accident Prevention, Manager, Ewa Plantation

9:35 a.m.—Accident Prevention in the Construction Industry, Sec. Treas. Central Labor Council of Honolulu

9:50 a.m.—The Future of Industrial Safety in Hawaii, Director, Territorial Dept. of Labor and Industrial Relations

10:00 a.m.—Safety Advances Since Fifty, Technical Director, American Standards Association

10:20 a.m.—The Safety Problem in Hawaii, Industrial Safety Engineer, Dept. of Labor and Industrial Relations

10:50 a.m.—Recess

11:00 a.m.—Statistics as an Aid to Accident Prevention, Training and Safety Director, Hawaiian Pineapple Co.

11:25 a.m.—Organizing Your Program, Safety Engineer

11:50 a.m.—Lunch

To give variety to the program a girl who had successfully competed in beauty contests in the Territory was used as a subject to stimulate interest in artificial respiration. At the end of the

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SMALL BUSINESSES and ASSOCIATIONS



By A. M. BALTZER

Director, Small Business and Associations Program, NSC

More Regional Programs

MANY REGIONAL safety conferences are continuing to feature sessions or talks on "small business" and an increasing number of them are setting up such programs within scheduled conferences. But, more encouraging are some of the new meetings designed to help smaller companies.

The Iowa Safety Council is conducting a series of regional industrial safety meetings, held in the evening, with the support of the Iowa Manufacturers Association. The meetings are conducted by and for managers and supervisors rather than exclusively for professional safety men. The Program Committee is planning the meetings so as to give both small and large companies the type of information they need. T. A. Kraklow, chairman of the Council's Regional Meeting Committee, expects that the total attendance of small company executives will be in proportion to the number of meetings scheduled inasmuch as non-safety men cannot take time to travel distances for lengthy safety conferences.

New England safety councils are making a bid for the small business "market" too. In January your reporter addressed meetings in Bridgeport, Conn., Springfield, Mass., and Worcester, Mass., and helped local safety council managers launch a longer-range program specifically designed to help the smaller companies. For instance, the Worcester Council's Industrial Division, under the chairmanship of Nelson Ingalls of

the Norton Company, plans separate meetings for small and large companies with two committees serving the small company division. Since the participants in this division's meetings will be top executives and supervisors the discussions will be more promotional and elementary than those scheduled for the larger companies with safety personnel. Again, a local group is using the right type of ammunition for the right target.

NAM Optimistic

IN A LETTER complimenting the Manufacturers Association of Berks County (Pa.) on their excellent safety program, John M. Convery, Industrial Relations Di-

vision of the National Association of Manufacturers says in part:

"I spent several days last week with Bob Scott (a member of the Council's Small Business and Associations Committee) at the National Safety Council meeting in Chicago and had an opportunity to learn of some of the fine work being done through trade associations.

"More small companies are starting effective safety programs, but we all recognize that much more needs to be done here. The Safety Council has tried many approaches with varying success, until a year ago when they started the division for associations and small business.

"I was gratified to see the progress being made so quickly in this field. It is quite evident that a safety campaign conducted by an association pays off.

"Experience certainly shows that smaller employers are responsive to safety programs undertaken by local or trade associations."

We are glad that the confidence of the NAM matches that of the NSC. Such support will go a long way toward insuring the success of our efforts.



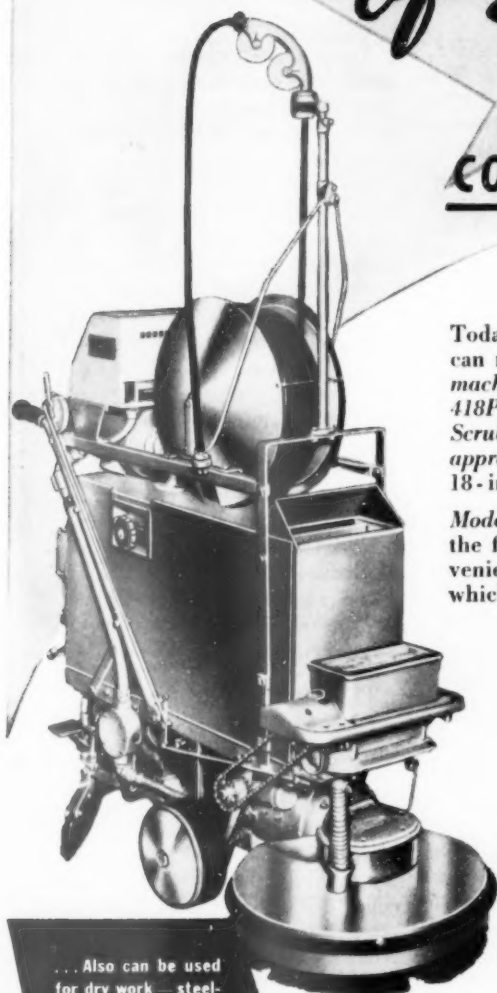
Pass-out material on cooperative medical services for small companies is discussed by A. M. Baltzer, National Safety Council and Dr. Carl Peterson, American Medical Association before the Council's small business safety exhibit at the 13th Annual Congress on Industrial Health, January 20-22 in Chicago. The Congress also featured a session on small companies' health problems and an AMA exhibit suggesting how a general practitioner could serve small companies.

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Today, even buildings with but 2,000 to 15,000 sq. ft. of floor space can reap the labor-saving, cost-reducing benefits of *combination-machine-scrubbing*. Here's a *Combination Scrubber-Vac, Model 418P* at left, that's specially designed for such buildings. This *Scrubber-Vac*, which has an 18-inch brush ring, cleans floors in *approximately one-third the time* required with a conventional 18-inch machine and separate vac unit.

Model 418P applies the cleanser, scrubs, and picks up (damp-dries the floor) — *all in one operation!* Maintenance men like the convenience of working with this single unit... the thoroughness with which it cleans... and the features that make the machine simple to operate. It's *self-propelled*, and has a *positive clutch*. There are no switches to set for *fast or slow*—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs efficiently and quietly. (Powder dispenser is optional.) Compactly built, the *418P* also serves advantageously in larger buildings for the care of floors in narrow aisles and congested areas.

Finnell makes *Scrubber-Vac Machines* for small, vast, and intermediate operations, and in *self-powered* as well as *electric* models. From this complete line, you can choose the size and model that's exactly right for your job (no need to *over-buy or under-buy*). It's also good to know that you can lease or purchase a *Scrubber-Vac*, and that there's a *Finnell man nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or *Finnell System, Inc.*, 2204 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

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Personals

New Officers of ASA Standards Board

EDWARD R. GRANNISS, manager, Engineering and Loss Prevention Department, Royal-Liverpool Insurance Group, New York, has been elected chairman of the Safety Standards Board of the American Standards Association.



Edward R. Granniss

Newly-elected vice chairman of the Board is H. B. DUFFUS, manager, Accident Prevention Service of Westinghouse Electric Corporation, Pittsburgh.

The ASA Safety Standards Board, whose name has recently been changed from Safety Code Correlating Committee, is the top technical group in ASA which supervises and correlates the standards work in the safety field. The Board's new name was chosen to indicate the administrative and supervisory operations with which it is charged.

Mr. Granniss has been active in safety work for nearly 30 years. He has held positions with the Travelers Insurance Company, the National Safety Council, the National Conservation Bureau, and as a faculty member of New York University. In 1942, he was commissioned as a Major in the Army

and became Chief of the Safety and Health Branch directing the Army Safety Program. He was made a lieutenant colonel in 1944. He planned and organized the theater safety activities in Europe and was awarded the Legion of Merit in 1945 for "facilitating a major conservation of manpower and war materials."

After the war, he returned to the Conservation Bureau in New York City, and in July 1946 joined the Royal-Liverpool Insurance Group, his present post.

Col. Granniss is chairman of the Engineering & Project Committee of the Association of Casualty & Surety Companies, a past president of the Washington Safe-



H. B. Duffus

ty Society, a member of the Executive Committee of the American Society of Safety Engineers, and a member of numerous technical associations. He is the author of many pamphlets on health and safety and has contributed for many years to the leading safety magazines.

Mr. Duffus is active in standards

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work in the safety field. He represents the American Society of Safety Engineers on the ASA Safety Standards Board and the National Safety Council and the National Electrical Manufacturers Association on several safety committees. In his work with the Westinghouse Corporation, Mr. Duffus serves as a consultant in accident prevention to the operating personnel at 37 plants and 39 district manufacturing and repair department locations.

THOMAS J. DUFFY has been appointed division manager of the New York Loss Prevention department of Liberty Mutual Insurance Company.

Mr. Duffy started with Liberty Mutual as servicing engineer in the New York office in 1936. He transferred to Binghamton and Rochester as resident engineer, to Atlanta in 1945 and Detroit in 1948, as supervisor. He was assistant division manager, industrial service, before his recent appointment.

A graduate of New York University College of Engineering and a licensed professional engineer in Georgia, Mr. Duffy is also a member of the American Society of Mechanical Engineers, Society of American Military Engineers and the American Society of Safety Engineers.

J. ERNEST STOTT, general supervisor of safety and training for Georgia Power Company, Atlanta, has been appointed assistant to the manager of the Industrial Relations Department. In his new position Mr. Stott will concentrate his activities in coordinating the company's training program and other activities of the industrial relations program.

H. Earl Hatfield, who has been assistant general supervisor of safety and training, succeeds Mr. Stott as general supervisor.

JOHN S. BOWMAN of 224 Mansfield Avenue, Darien, Conn., has been appointed supervisor of the
—To page 82

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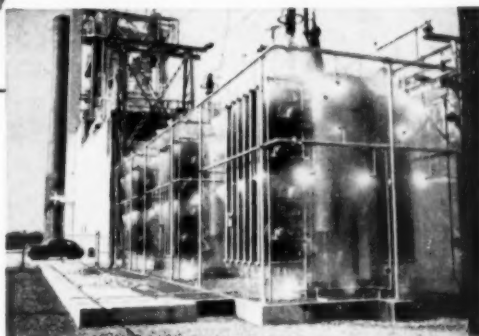
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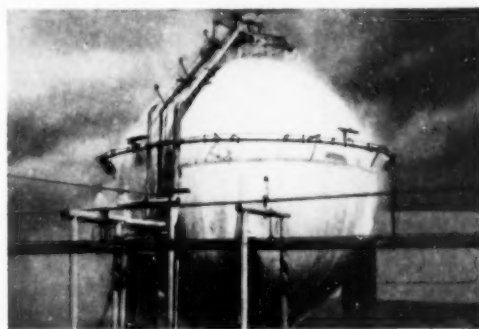


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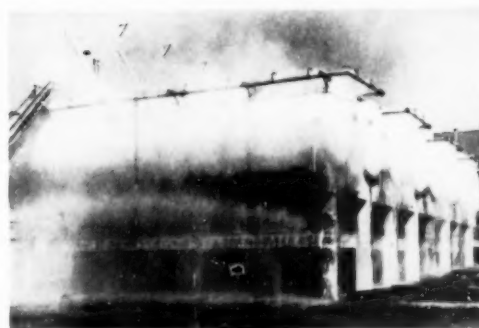
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Report on Hazards of Soybean Products

Underwriters' Laboratories, Inc., has released a new Bulletin of Research, No. 47, entitled *The Spontaneous Ignition and Dust Explosion Hazards of Certain Soybean Products*.

The investigation was undertaken to obtain information on the spontaneous ignition and dust explosion hazards of certain soybean products, including soybean oils, soybean oil meals, and soy flours. Dusts and screenings encountered in storage and handling of soybeans were included in this investigation because of their fire and explosion hazards.

The results of this investigation indicated that:

1. Soybean oils—including crude hydraulic, crude expeller, crude solvent-extracted, nonbreak, alkali-refined, bleached and deodorized, hydrogenated, and blown types—heated spontaneously and ignited.

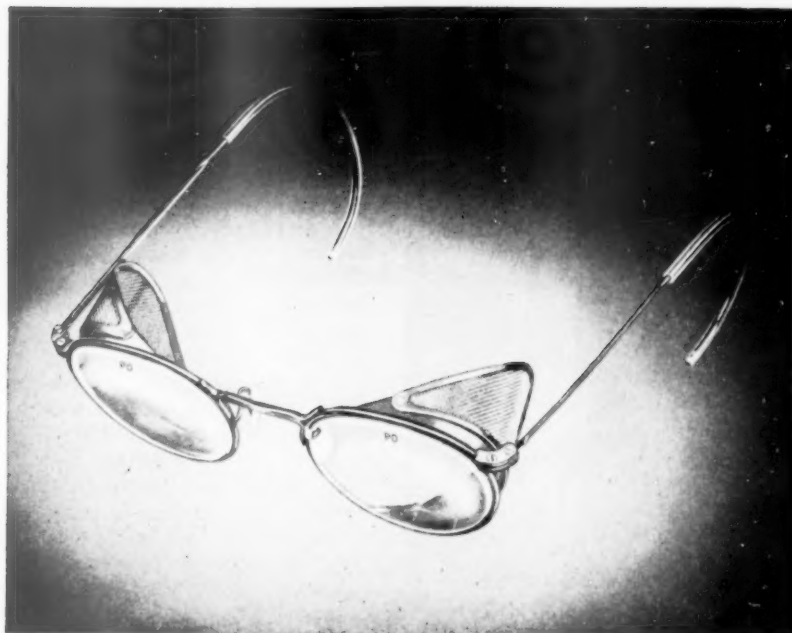
2. The spontaneous ignition hazards of soybean oil meals and soy flours appear to depend primarily upon the amount of soybean oil present in those products. Full-fat and medium-fat soy flours heated spontaneously and ignited. Industrial hydraulic soybean oil meal heated spontaneously to a moderate extent, but did not ignite. Untoasted solvent-extracted soybean oil meal and low-fat soy flour did not heat spontaneously under the conditions of the spontaneous ignition tests.

3. Screenings from soybeans may present a spontaneous ignition hazard under some circumstances, depending on the amount of soybean oil and other oxidizable combustible material present in the screenings.

4. Like other common combustible agricultural products in a finely divided solid state, soybean oil meals, soy flours, and soybean dusts and screenings are capable of propagating flame (explosion) when disseminated in air in sufficient quantities in the presence of an adequate source of ignition.

Copies of this bulletin may be obtained by addressing Underwriters' Laboratories, Inc., 207 East Ohio Street, Chicago 11.

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Safe Driving Dramatized



DO'S AND DON'TS of industrial truck driving are dramatically shown in a new 30-minute sound movie produced by Clark Equipment Company. Entitled *Safety Saves*, this training and safety movie was filmed at on-the-job factory and warehouse locations. It is believed to be the only train-

ing film on this subject yet produced.

The causes of most truck accidents and how to avoid them are shown in a sequence of incidents that might take place in any plant where a driver like Willie the Cowboy is employed.

Willie, the villain of the picture,

drives a fork truck like a hot rod. He doesn't look where he is going, ignores overhead clearances, parks his truck in the middle of an aisle, and is likely to be distracted by the presence of the fair sex.

Willie, in short, is a menace—to fellow employees, to the goods he's handling, and to himself. The narrator of the film patiently tries to teach Willie the error of his ways, and he nearly succeeds. Unfortunately, Willie makes one mistake too many and in the last scene he is carried away on a stretcher. In real life, few operators would have lasted that long.

Along with these horrible examples of how not to handle a fork truck are demonstrations of correct, safe methods. Besides fork truck operations, *Safety Saves* contains instructions for operators of towing tractors and hand trucks.

The movie has the same title as a booklet issued by the Clark Equipment Company in 1951. *Safety Saves* brings to the screen the training material presented in the booklet. The film is now available on a loan basis and information may be obtained by writing to the Clark Equipment Company, Industrial Truck Division, Battle Creek, Mich.

New Provisions in Building Exits Code

DOORS LEADING to enclosed stairways in schools, hospitals, hotels, office and public buildings should now be marked, "FIRE EXIT—Please Keep Door Closed." This requirement has been included in the new edition of the *Building Exits Code*, A9.1-1952, just approved as an American Standard.

This new provision of the Code is an attempt to solve a particularly troublesome problem in fire protection — keeping stair doors shut to prevent the upward spread of fire and to safeguard the path of escape down the stairs.

The *Building Exits Code*, developed under the leadership of the National Fire Protection Association through the procedures of

the American Standards Association, has a standing of 25 years of service in the public interest. It has gone through 12 revisions.

Prior to the first edition, study was made of such notable fires of that day as the Iroquois Theatre fire, the Collinwood School fire, and the Triangle Waist Company fire. Succeeding editions have taken into consideration such disasters as the Cocoanut Grove Night Club fire, the LaSalle and Canfield Hotel fires, and the Winecoff Hotel fire, in an attempt to keep up with experience in the protection of the public.

The Code specifies the number, size, construction, and position of exit facilities, in order that buildings can be emptied promptly in case of fire, panic, or other emergency. It recognizes that life safety involves more than exits,

and accordingly also covers stairways, fire escapes, aisles and corridors, elevators, slide escapes, alarm systems, lighting and signs, and fire drills.

A new requirement of the revised code is that doors be openable by a readily available, convenient, and obvious type of latch.

A former requirement for panic bars on all outside doors of schools has been modified. A change in wording now exempts from this requirement one-story schools, where each individual classroom has a separate door to the outside of the building.

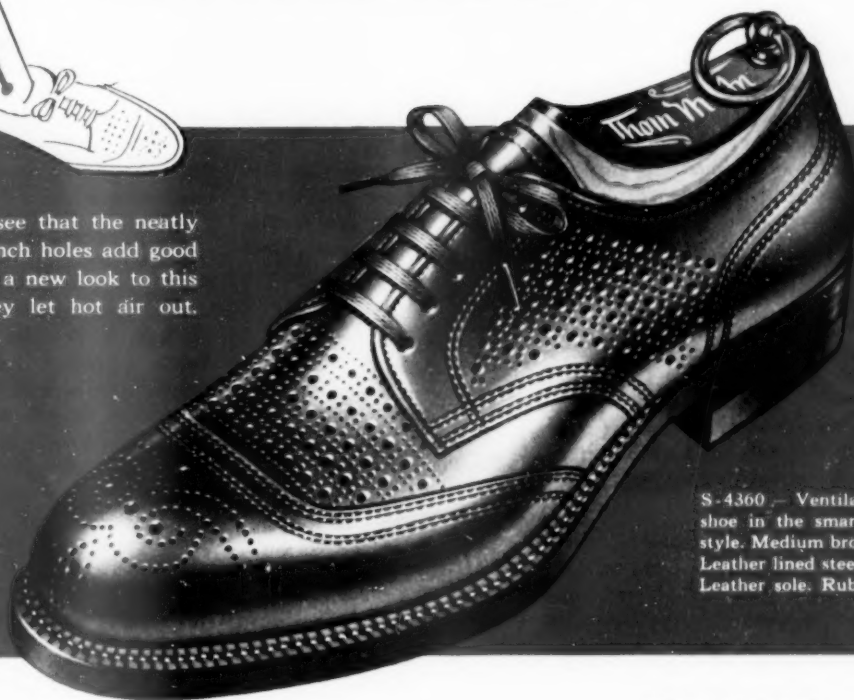
Copies of the *Building Exits Code*, A9.1-1952, are available from the National Fire Protection Association, 60 Batterymarch Street, Boston 10, Mass., and from the American Standards Association, 70 East 45 Street, New York 17, at \$1.00 each.

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You can see that the neatly placed punch holes add good looks and a new look to this shoe! They let hot air out, cool air in.



S-4360 — Ventilated dress shoe in the smart U-wing style. Medium brown color. Leather lined steel toe box. Leather sole. Rubber heel.

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Write today for details of this last-named service and Thom McAn's 4-way employee purchase plan, plus descriptions of the full line of Thom McAn Safety Shoes to . . .

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25 West 43rd Street, New York 36, N. Y.

Here's a safety shoe that needs no "sales talk" from you! Your men will go for that up-to-the-minute U-wing tip *on sight*. And those neat and refreshing perforations mean *happy standings* all through the warm months. It's a case of the warm air inside the shoe rising up and out, while the outside air—cooler and fresher—circulates down and in.

Thom McAn challenges anyone—no matter how practiced his eye—to spot this as a safety shoe at five paces! Actually, there **IS** a leather lined steel cap under the toe. Your workers will wear this shoe *by choice*. They'll even want to wear 'em after hours!

Men on their feet stay "on their toes"
in Thom McAn's Safety Shoes!

Thom McAn

SAFETY SHOES

A DIVISION OF MELVILLE SHOE CORPORATION

GREEN CROSS NEWS



Activities of Local Safety Councils and Chapters

Compiled by TOM A. BURKE

Director of Local Safety Programs, Field Organization, NSC

Southern Safety Conference

Twelve hundred delegates attended the Southern Safety Conference and Exposition, held March 1-3 at the Biltmore Hotel, Atlanta. A special session on community safety was directed by Charles E. Doerler, manager of the Caddo Bossier Safety Council and the Louisiana Safety Council, at which Earl F. Campbell, director NSC Field Organization, and Manager Estel Hack of the Louisville Safety Council led discussion on community council financing. The large attendance came from 14 Southern States. The well-planned, smooth running meeting was ably directed by Captain W. L. Groth of the Virginia Highway Department.

New Jersey Progress

The New Jersey State Safety Council recently compiled and distributed a comprehensive bulletin to its directors, officers, members and prospects, outlining the highlights of 1952 activities in eight fields of effort as follows: traffic and other public safety, home safety, industrial, commercial vehicle, driver education, school and college, recreational safety and public information. The State Council was formed in 1946. In the five-year period, 1947 through 1951, compared with the preceding five years, there were 317 less fatalities on the job, 530 fewer home deaths and 127 fewer traffic fatalities.

Front Royal Reorganization

A group of 70 civic leaders recently launched a "revitalization" program to reorganize the Warren County (Va.) Safety Council, in-

active for some time. Every important organization in the community—official and non-official—was represented at the initial meeting. Prime mover in getting the citizens out was the Health and Safety Committee of the Front Royal—Warren County Chamber of Commerce. Mayor William C. Deming pledged full cooperation by the city. Edwin S. Smith, Eastern Region manager, NSC, spoke at the session. The final meeting will be held soon.

Oneida County Council

President Andrew C. Treiber of the recently organized Oneida County Safety Council announces that offices have been set up at 329 Genesee Street, Utica, N.Y. Treiber is a prominent insurance man, long interested in community safety. A two-year budget amounting to \$50,000 is planned and a fund-raising program is already under way with a group of civic leaders in the industrial and mercantile fields making personal solicitations. The organization plans to apply for a Class "A" Charter in NSC when their plans have been fully developed. A full-time director and staff will be employed.

Room for Safety

The Monitor, official publication of the Ohio Industrial Commission, has been devoting entire editions to important safety conferences in the state. Recently a complete issue publicized the Cincinnati Safety Conference and more recently a special issue was given over to the First Annual Miami Valley Safety Conference, held in Dayton. In each case the

program was outlined in detail with large pictures, of headline speakers and conference leaders. The Industrial Commission and James H. Fluker, superintendent of the Division of Safety and Hygiene, are to be commended for this contribution to the cause of community safety.

N. Y. Federation Meets

At the New York State Federation of Community Safety Organizations meeting held at Rochester February 5, President Robert H. Austin, Personnel Director, International Business Machines, gave the address of welcome. Interesting sessions were held on enforcement, compulsory insurance, local council financing and an "Intensive Traffic Safety Plan." A joint luncheon meeting with the Rochester Safety Council was held at the Chamber of Commerce followed by a tour of the Eastman Kodak Company plant.

Pierce Heads Jax Council

Harry A. Pierce, president of the insurance firm that bears his name, was elected recently to the presidency of the Jacksonville Safety Council. He has been identified with civic affairs in the Florida city for many years and has served as president of the Southside Business Men's Club and the local Optimist Club. He has been in the insurance business in Jacksonville for 25 years. During the Gator bowl activities and New Year festivities in Jacksonville, Miss Marilyn Richards, a high school student, was crowned "Queen of Safety" and the lovely young lady and her "court" were

—To page 120

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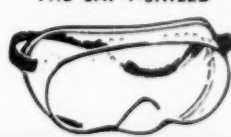
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Visitor from Israel



Y. AARONSOHN, chief labour inspector for Israel, stops at the desk of Editor Carman Fish while visiting National Safety Council offices. Felix B. Streyckmans, editorial director, NSC publications, looks on. Mr. Aaronsohn was on a two month tour of Great Britain, Holland and the U. S. A. sponsored by the International Labor Office. While in these countries he has been studying methods of factory

inspection and measures for the prevention of accidents and occupational diseases.

While Israel is not yet a highly industrialized country some important developments are under way. The Dead Sea is an important source of many chemicals and some open pit mining is carried on. Potash and cement are among the leading products.

Contest Reaches the Employee's Home

A NOVEL telephone contest, which has caught the housewife's imagination, is helping the Powell River Company to get its accident prevention message into the homes of 2,000 mill employees.

Aimed weekly at female members of the household, the contest encourages the worker's family to take a greater interest in safety by offering a 50 dollar prize for the correct answer to the question: "What is this week's accident prevention slogan for the mill?"

But it also brings the employee himself into the picture by revealing the answer to the question each week only on bulletin boards in the various departments. So it's up to him to see that his wife,

mother, sister, daughter, and aunt know the slogan if the company's safety supervisor should phone and make the cash offer in return for the slogan.

That's exactly what happened, incidentally, the very first week the contest was tried in December. Mrs. Archie McPhee, who, like most women in Powell River and district had read of the impending contest in the company's magazine, *The Triangle*, asked her husband (a winderman on one of the paper machines) if he knew the slogan. He didn't. Rightly figuring she didn't stand a chance of winning without that knowledge, Mrs. McPhee insisted her husband find it out for her.

Meantime—in the safety office—Bob Bridge and Dick Bull, union safety representatives, were

blindfolded as they in turn chose a page at random from the local telephone directory and picked a name from that page. It happened to be Mrs. McPhee, who was promptly asked on the telephone by Stuart Slade, company safety supervisor, if she knew the slogan ("Stop accidents today — take home a full pay!"). Russell M. Cooper, vice-president of the company, presented her with a check for \$50 the following day.

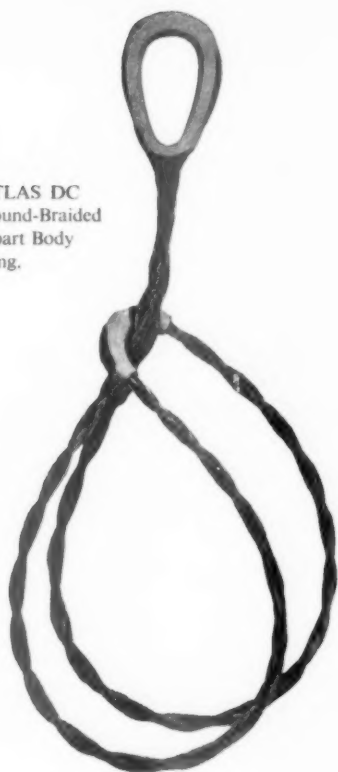
Heads MIT Alumni

The Alumni Association of the Massachusetts Institute of Technology has named Horatio Bond, chief engineer of the National Fire Protection Association, president of the alumni body for a term to begin in July 1953. The National Fire Protection Association is the voluntary technical society in the field of fire prevention and fire protection with headquarters in Boston. Mr. Bond has directed important phases of its work with industrial plants, government departments and insurance offices since becoming its chief engineer in 1939. He joined the NFPA staff shortly after graduation from M.I.T. in 1923.

A well-known fire protection engineer, Mr. Bond recently wrote *A "First Book" on Fire Safety in the Atomic Age* to explain some of the fire problems of the atomic bomb. He is a consultant to the U. S. Atomic Energy Commission, serves on the Massachusetts Defense Council and was recently member of a group assigned to review officially U. S. national policy on civil defense. He is a member of the Society of Fire Protection Engineers and honorary member of The British Institution of Fire Engineers.

His service to the Massachusetts Institute of Technology includes being a member of the Alumni Council and Alumni Fund Board, Secretary of the Class of 1923 and previous service as a member of the executive committee and as vice-president of the Alumni Association.

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Round-Braided
8-part Body
Sling.



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fit every need*

Three types of body are available: Atlas Round-Braided, Drew Flat-Braided, Monarch Single-Part. All are made to order in any size for any job.

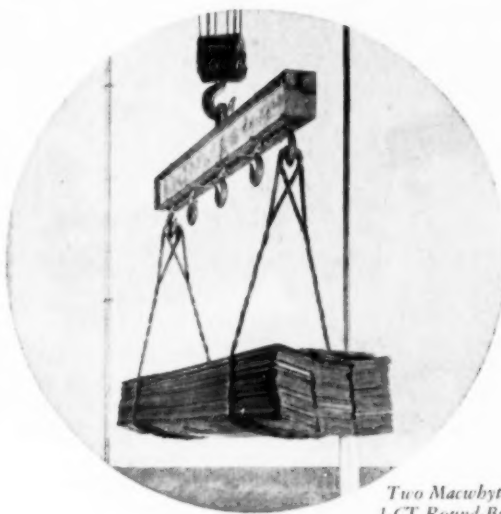
Our engineers will gladly study your sling needs and make recommendations.

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There's longer life in an Atlas Braided Sling because of Macwhyte's *balanced* method of construction: 1. Ropes are spliced endless before braiding. 2. Right lay ropes balance left lay ropes. 3. All ropes follow uniform spiral paths, assuring balanced tension throughout the sling body.

Greater flexibility, no kinking, no spinning, and longer sling life are all provided by Macwhyte's "Balanced Braid."



Two Macwhyte Atlas type
1-CT Round-Braided Sling
with 6-ton lifting beam
handling plate stock.

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Kenosha, Wisconsin

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BAR-FLEX SOLES for no-sag arches

These sturdy arch ridges distribute weight to the whole foot. Wavy cleated sole guards against slip and slide.



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HIGH KWIK ARCTICS — Built of 100% NEOPRENE rubber for toughest industrial jobs. Snug zippered closing. Comes in cleated or anti-skid soles.



U. S. ROYAL SNUGLACE BOOTS

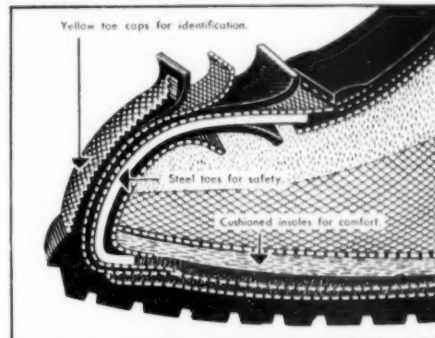
— The boot with adjustable laced uppers, flexible shingled ankle construction and steel toes. Shockproof Cushioned Insoles and U. S. Royal Tread soles of Tempered Rubber provide support for arches and non-skid safety.



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STEEL TOES WITHSTAND 2,000 POUNDS PRESSURE

This tough steel guard engineered by "U. S." has protected many feet from injury.



U. S. ROYAL WORK SHOES—The boot that's built like a fine shoe. Made of tough tempered rubber. Special "U. S." features: Steel arch shanks and Shockproof Insoles for standing comfort. Also available in plain toes.



NEW BAR-FLEX DAIRY BOOT

The white, non-marking sole helps keep dairy floors spotless. BAR-FLEX soles insure foot comfort and arch support.



NEW NEOPRENE DAIRY BOOTS

Of handsome maroon rubber, these 12-inch high boots are easy-on-and-off; have snug-leg comfort, strap top. Gray anti-slip cleated soles and heels for safety. For standing comfort, "Shockproof" Cushion Insoles.



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ROCKEFELLER CENTER, NEW YORK

INDUSTRIAL HEALTH



Abstracts of current literature
on Industrial Hygiene, Medicine, and Nursing

BY F. A. VAN ATTA
Industrial Department, NSC

Occupational Deafness

A Field Study of Occupational Deafness, by Colin M. Johnston. The British Journal of Industrial Medicine 10:41-50 (January 1953).

THIS WAS an investigation of 219 men and women employed in noisy metal trades including a boiler shop, a drop forge and a screw manufacturing plant.

Twenty-eight of the workers had ear diseases or deafness not caused by noise. Of the remainder, all except one were found to have hearing losses due to excessive noise.

After 20 or more years exposure nine of 12 chippers and riveters, seven of 11 drop forge operators, six of 12 boiler makers and four of 14 heading machine operators were unable to hear speech at more than three feet with either ear.

Noise levels were determined by the Physics Department of the National Physical Laboratory. Their figures indicated that hearing loss occurred only when the noise level exceeded 105 to 108 phons. There is no indication of the frequency distribution of the noise. It is suggested that sound levels lower than 105 phons may damage the hearing of a small group of individuals who are most susceptible to noise injury.

Some observations were made on the ability of workmen in noisy occupations to hear speech over the noise of their own work. In particular it was observed that they could hear better over their own work than in equally noisy but foreign environments. It is suggested that this adaptation is

probably mostly of central nervous system origin.

It was also noted that in spite of the fact that all of them were well aware of the high incidence of occupational deafness in their trade, only 13 of 64 boiler makers habitually wore ear plugs and three of these stated that they wore them primarily to keep dirt out of their ears.

Group Bonuses

Some Psychological Conflicts Caused by Group Bonus Methods of Payment, by Norah M. Davis. The British Journal of Industrial Medicine 10:18-26 (January 1953).

THERE ARE no statistics on the number of British industrial workers who are paid on wage incentive schemes but it is generally thought that the number has been increasing in recent years. The British Ministry of Labour surveyed a group of 56,200 industrial establishments in October 1951 and found just over a third of the workers were on some system of payments by results. The percentage was higher in nearly all groups of workers than it had been in October 1949.

There have been relatively few studies of actual results of such bonus schemes so there is relatively little proof that they actually do lead to increased production although there is an a-priori reason for believing that they should lead to increased production. The object of the present investigation was to study the attitudes of some groups of industrial workers toward their group bonus methods of payment. In order to test the

effectiveness of such schemes it is necessary to determine the workers' attitudes toward them since the motives and satisfactions of industrial workers are not well known and there are drives to attain satisfactions other than money.

This investigation was carried out in five factories involving a large variety of manufacturing operations and processes. There was a cigarette plant, a clothing plant, a machine shop, a plant for production of pre-fabricated concrete houses and a pottery. The investigation was carried out by personal interviews with each of the 788 individual workers who constituted either the total working force of a department or a statistically random sample of a department. Each workman was interviewed privately and was assured that the interview was to be held confidential. Each individual was asked a few set questions and was also given an opportunity to express himself spontaneously.

On general attitude all of the workers in all of the plants were fairly evenly divided. About one-third were satisfied in general with their method of payment, about one-third were of neutral or divided opinion and about one-third were dissatisfied with the general method.

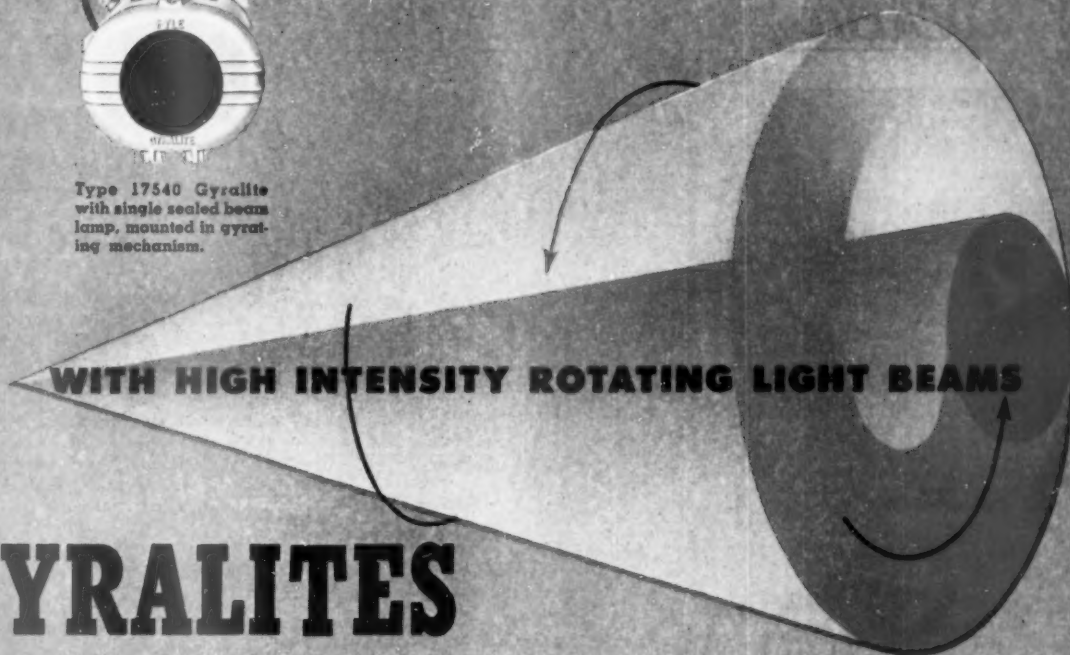
There were favorable comments about the bonus system by a majority of all the workers including even many of those whose general attitude was unfavorable to it. The most commonly expressed reasons were the possibility of earning

—To page 94

PINPOINT SAFETY HAZARDS

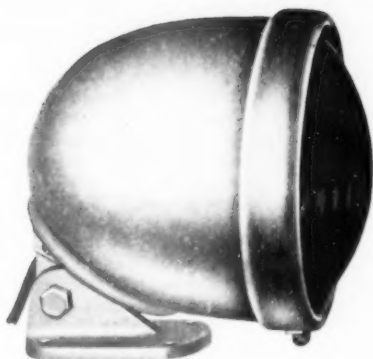


Type 17540 Gyrallite with single sealed beam lamp, mounted in gyrating mechanism.



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Type 15100 Gyrallite, for low voltage duty with rotating glass reflector, projects high-intensity colored or clear beam which rotates with a wide, circular sweeping action. Available with a plain or prismatic lens for beam pattern control.

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COMING EVENTS



In the Field of Safety

Apr. 9-11, Kansas City, Mo.

Central States Safety Congress (Hotel President). George M. Burns, director, Kansas City Safety Council, 419 Dwight Bldg., Kansas City 6, Mo.

Apr. 14-15, Indianapolis, Ind.

Central Indiana Safety Conference (Claypool Hotel). Jack Gunnell, Indianapolis Chamber of Commerce, 320 N. Meridian St., Indianapolis 11, Ind.

Apr. 14-16, Columbus, Ohio

Twenty-third All-Ohio Safety Congress and Exhibit. (Deshler-Wallick Hotel). James H. Fluker, superintendent, Division of Safety and Hygiene, The Industrial Commission of Ohio, Columbus 15.

Apr. 20-21, Toronto, Ont.

Industrial Accident Prevention Associations, Annual Conference (Royal York Hotel). R. G. D. Anderson, general manager, 600 Bay St., Toronto 2, Ont.

Apr. 21-23, Grand Rapids, Mich.

Michigan Safety Conference and Exhibit (Civic Auditorium). Elon J. Schantz, executive secretary, c/o Consumers Power Co., 129 Pearl St., N. W., Grand Rapids 2, Mich.

Apr. 21-23, Niagara Falls, N. Y.

Thirteenth Western New York Safety Conference (Hotel Niagara). E. C. Hohlstein, executive secretary, c/o Buffalo Equipment Division, Blaw-Knox Co., 1543 Fillmore Ave., Buffalo 1, N. Y.

Apr. 22-24, Charleston, W. Va.

West Virginia Safety Council, Inc. Annual Conference and Exhibit. Charles Hopkins, acting managing director, 316 Masonic Bldg., Charleston, W. Va.

Apr. 23, Bridgeport, Conn.

Eighth Annual Connecticut Industrial Safety Conference. (Hotel Stratfield). H. R. Erickson, c/o Chase Brass & Copper Co., Waterbury, Conn.

Apr. 27-29, Phoenix, Ariz.

Western Safety Conference, Inc., 15th Annual Conference and Exhibit. H. E. Hodgson, secretary, 310 Luhrs Bldg., Phoenix, Ariz.

Apr. 28-30, Pittsburgh

Western Pennsylvania Safety Council



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If you are not already using anti-slip waxes containing "Ludox," ask your supplier about them. Or, if he cannot supply you with a wax fortified with "Ludox," consult E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Dept., 4147-N Du Pont Bldg., Wilmington 98, Delaware.

**How "LUDOX"
gives slip resistance**

As the foot presses on the waxed floor, submicroscopic particles of "Ludox" (so small that there are more than 300 trillion under the heel alone) press into larger, softer wax particles. This provides a unique snubbing action ... helps keep the foot from slipping.

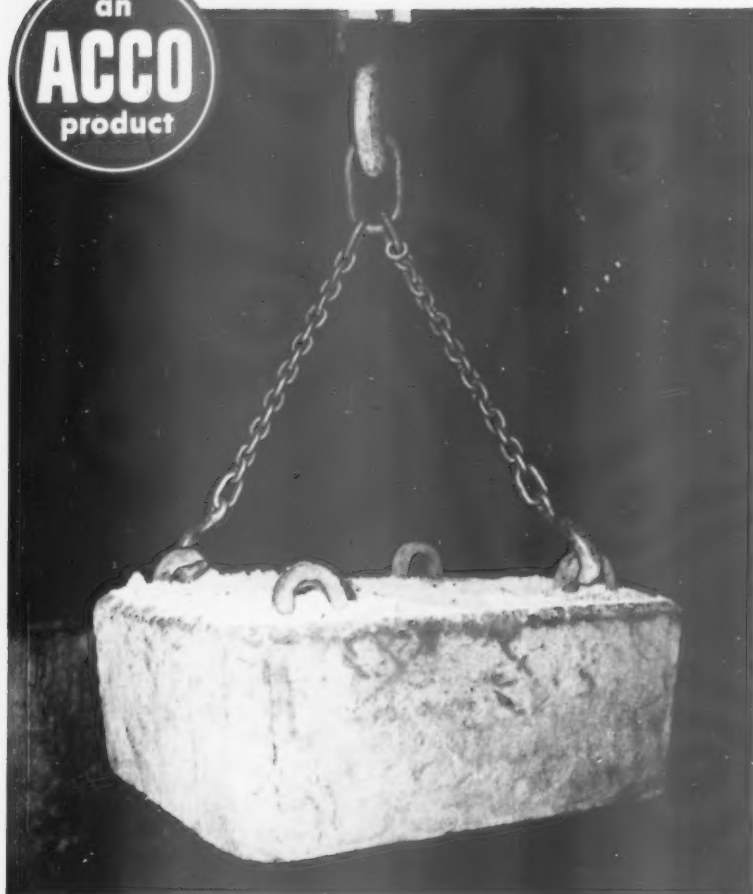


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New York, Philadelphia, Pittsburgh, Portland,
San Francisco, Bridgeport, Conn.

**American
Chain**

ed, 23rd Annual Safety Engineering Conference and Exhibit. Harry H. Brainerd, executive secretary, 605 Park Bldg., Pittsburgh 22, Pa.

Apr. 30, La Crosse, Wis.

Southwestern Wisconsin Safety Conference.

Apr. 30-May 1, Montgomery, Ala.

1953 Alabama Safety Conference (City Auditorium). Don Costa, executive secretary, Alabama Safety Commission, P. O. Box 1471, Montgomery, Ala.

May 6-8, Oklahoma City, Okla.

Annual Oklahoma Safety Conference (Biltmore Hotel). Lloyd F. Palmer, manager, Oklahoma Safety Council, Inc., 1600 N.W. 23rd St., Oklahoma City, Okla.

May 7, Watertown, Wis.

Rock River Valley Safety Conference.

May 7-8, Baltimore, Md.

The Governor's Safety-Health Conference and Exhibit (Lord Baltimore Hotel). Joseph A. Haller, director of safety, State Industrial Accident Commission, Equitable Bldg., Baltimore 2, Md.

May 7-9, Roanoke, Va.

Nineteenth Annual Virginia State-Wide Safety Conference (Hotel Roanoke). William M. Myers, managing director, Richmond Safety Council, 49 Allison Bldg., Richmond 19, Va.

May 11-13, Syracuse, N. Y.

Central New York Safety Conference and Exposition. Walter L. Fox, manager, Safety Division, Chamber of Commerce, Syracuse, N. Y.

May 13, Allentown, Pa.

Twenty-sixth Annual Eastern Pennsylvania Safety Conference. Harry C. Woods, manager, Lehigh Valley Safety Council, 602 East Third St., Bethlehem, Pa.

May 13-15, Winston-Salem, N. C.

Twenty-third Annual North Carolina Statewide Industrial Safety Conference, (Robert E. Lee Hotel). H. S. Baucom, safety director, North Carolina Industrial Commission, Raleigh, N. C.

May 14, Green Bay, Wis.

Fox River Valley and Lake Shore Safety Conference.

May 26, Waukesha, Wis.

South East and Lake Shore Safety Conference.

May 18-22, Chicago

National Fire Protection Assn., 57th Annual Meeting (Palmer House). Percy Bugbee, general manager, 60 Batterymarch St., Boston 10, Mass.

May 21-22, Duluth, Minn.

29th Annual Conference, Lake Superior Mines Safety Council (Hotel Duluth). John A. Johnson, chief, Accident Prevention and Health Div.,

Region V, U. S. Bureau of Mines, 18 Federal Bldg., Duluth 2, Minn.

June 2-4, Chicago

Greater Chicago Safety Conference and Exposition (Conrad Hilton Hotel). Joseph F. Stech, manager, Greater Chicago Safety Council, Suite 806, 10 North Clark St., Chicago 2.

June 2, Rhinelander, Wis.

Wisconsin River Valley Safety Conference.

June 4-6, Portland, Ore.

Nineteenth Annual Forest Products Safety Conference (Multnomah Hotel). Pat Reiten, secretary, Simpson Logging Co., Shelton, Wash.

June 11, Superior, Wis.

Upper Mississippi Valley and Lake Superior Safety Conference.

Sept. 16-17, Harrisburg, Pa.

Pennsylvania Industrial Safety Conference (Hotel Penn Harris). Frank K. Bohl, deputy secretary, Department of Labor and Industry, Room 304 South Office Bldg., Harrisburg, Pa.

Sept. 17-18, York Harbor, Me.

Twenty-sixth Annual Maine State Safety Conference (Marshall House). A. F. Minchin, secretary, Industrial Safety Division, Department of Labor and Industry, Augusta, Me.

Oct. 19-23, Chicago

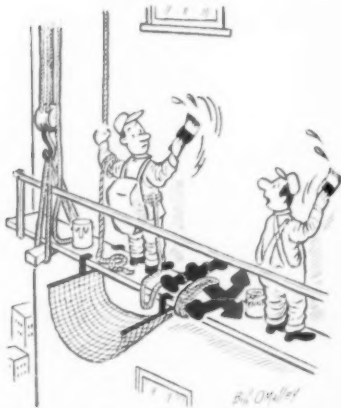
Forty-first National Safety Congress and Exposition (Conrad Hilton Hotel). R. L. Forney, general secretary, National Safety Council, 425 N. Michigan Ave., Chicago 11.

Nov. 17-18, Cincinnati, O.

Third Annual Greater Cincinnati Safety Conference (Sheraton-Gibson Hotel). Kenneth R. Miller, executive director, Greater Cincinnati Safety Council, 1203 Federal Reserve Bank Building, Cincinnati 2, Ohio.

Dec. 7-8, New Orleans, La.

Louisiana Safety Conference (Roosevelt Hotel). Charles E. Doerler, Secretary, P. O. Box 1148, Shreveport, La.



"I like working with a fellow who believes in safety first."

National Safety News, April, 1953



How ACCO REGISTERED Stock Slings Save You Money—with Safety

1 • **You Get ALL the Strength You Pay For**—DUALOC* Endings insure against any loss in the catalog strength of the preformed Green Strand wire rope the sling is made of.

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3 • **ACCO Slings are Stocked by Your Industrial Supply House**—His stock is based on YOUR needs. So, your sling inventory can be held to a minimum since your distributor's stock is as close as your telephone.

4 • **These Slings and Fittings are "ACCO Registered"**—This assures you of highest quality and safety throughout.

Write today to our Wilkes-Barre office for name of the ACCO Registered Sling distributor nearest you.

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Books, Pamphlets and Periodicals of Interest
to Safety Men

BOOKS AND PAMPHLETS

Safety's Great Philosopher

Safety for Greater Adventures; the Contributions of Albert Wurts Whitney, edited by Herbert J. Stack. Published by the Center for Safety Education, New York University, Washington Square, New York. 1953; 128 p.; price \$1.65.

OF ALL PEOPLE in the safety movement Albert W. Whitney most deserves a biography because his ideas were basic and lasting. The first two chapters of *Safety for Greater Adventures* presents a brief biography, written by close friends, warm, intimate, a well-deserved tribute. I suspect that Whitney, still zestfully pursuing knowledge and botany in his Elysian garden-library, would have liked some mention of his weaknesses; for he always tried to think clearly and honestly, and usually succeeded.

His fine qualities did not include "the dynamics of the man of action" (page 13). He was not an organizer or an executive; his attempt so to function was the least successful part of his career. He loved ideas and liked to see them carried out by others. He loved mankind in the mass; in congenial company he was charming and fluent; with others, his diffident and detached reserve was sometimes mistaken for coldness, even snobbery. He once attended a police convention in Chicago with (at the urging of an associate) four bottles of whiskey in his suitcase. At the convention's close the bottles were unopened. No police chief had visited Albert's room.

He was an expert mathematician, an effective teacher, a founder of actuarial science, a fearless

advocate of the social responsibilities of both insurance and education, the outstanding philosopher of safety; a lover of flowers and the outdoors; a friend whom no friend will ever forget; a very human person. What more can one ask?

Whitney would, I think, be touched by two quotations from these biographical chapters. The first is by insurance president Edson Lott (page 29): "Although I intensely dislike professional reformers, I am exceedingly fond of him because I regard him as an amateur reformer—he succeeded only in reforming himself, which wasn't the least bit necessary." (Whitney did of course influence, if not "reform" Mr. Lott and many others.) The other (page 36) is from Paul G. Agnew, his close associate in the early days of the American Standards Association: "It is given to few men to exert so profound an influence in three fields of endeavor as did Whitney in the fields of insurance, safety and standardization." It is indeed.

Chapter 3 comprises some 14 pages of carefully selected passages from Whitney's innumerable speeches, articles and other writings—a painstaking and excellent job of selection and arrangement and, for future students, perhaps the most valuable part of the book. One regrets that Whitney did not organize in book form his penetrating and largely original analysis of safety in relation to education, industry, insurance, ethics and the art of living. Perhaps he didn't "find time"; perhaps modesty deterred him. Part of Albert's charm was that he took his ideas very seriously, but not himself.

The remaining three chapters deal further with Whitney's activities and ideas: with the work of the Accident Prevention Department of the Association of Casualty and Surety Companies and its predecessor organizations, over which he presided for almost thirty years; the work of other organizations in which he took the lead or a leading part, notably (in time order) the American Standards Association, the Education Division of the National Safety Council and the Center for Safety Education of New York University; and the growth, accomplishments, and future of the safety movement and particularly of safety education. These amplify and sometimes repeat the material contained in the first three chapters. One wonders at times whether one is reading about a man, a movement or an industry. As a history of safety, or of safety education, the treatment is a bit unbalanced. And in relating early events there are a few inaccuracies, not important unless future historians take them as gospel.

Such criticism however seems captious since, as I understand, the book was a labor of love on the part of Herbert J. Stack and the other contributors. At the very least they have given us a detailed and documented story of a great man. For this we are grateful.

Sidney I. Williams

Electrical Code Diagrams

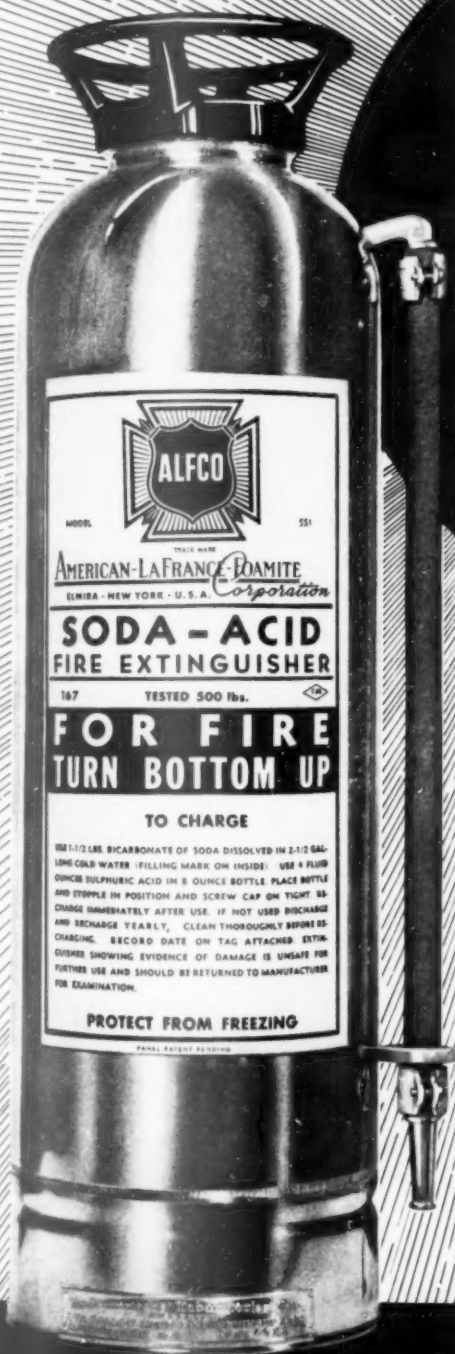
Electrical Code Diagrams, 1952. By B. Z. Segall. McGraw-Hill Book Co., New York. \$12.50 per volume.

Two new volumes have been written and produced by B. Z. Segall, a registered professional engineer, on the subject of Electrical Code Diagrams. Both volumes are based on the 1951 edition of the National Electrical Code.

In order to cover all of the codes it was necessary to produce two volumes. This is one of the most practical aids that has ever been produced and shows the National Electrical Code in diagram form. —To page 64

TESTED TO...

500 lbs.



Shell strength never before achieved! The Alfco Model 55-1 Soda-Acid Fire Extinguisher, tested to 500 pounds, has an ultimate shell strength of 1400 pounds per square inch . . . Alfco's triumph of Monotype Construction in Silicon Bronze. Lighter in weight—rich, golden-hued finish of polished Silicon Bronze.

Made with unremovable Alrauh label of distinguishing blue color, as an integral part of the shell . . . more legible, more easily cleaned.

This extinguisher is ideal for fighting fires in wood, paper, rubbish, etc. Approved by Underwriters' and Factory Mutual Laboratories; Underwriters' rating: A-1.

Foamite Fire Extinguishers also available in Monotype Silicon Bronze.

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LEADERSHIP IN FIRE PROTECTION

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Wright Speedway Hoists

Why WRIGHT Speedway Hoists Require Less Servicing...



● 5 key features of WRIGHT Speedway Hoists mean longer life and less servicing. These features are heat-treated and surface-hardened alloy steel gears, hard alloy silver electrical contacts in controller, heavy duty crane type safety limit stop, automatic multiple disc load brake and ball bearing gear shafts.

And there are other features which add further to the fine service you get from a WRIGHT Speedway Hoist. For instance—grooved cable drum, improved plow steel preformed cable, concealed motor wiring, and completely enclosed, ventilated housing weather-proofed for permanent outside use. Ball and roller bearings seldom require additional lubricant. Gear train is sealed in oil bath chamber.

You can get standard lift, long lift, or close headroom WRIGHT Speedway Hoists in capacities from $\frac{1}{4}$ to 10 tons—all with these same quality features. See your local WRIGHT distributor or write our York office for **DH-133-A**. WRIGHT will save you money.

ACCO



WRIGHT HOIST DIVISION
AMERICAN CHAIN & CABLE

York, Pa., Chicago, Denver, Detroit, Los Angeles, New York,
Philadelphia, Pittsburgh, San Francisco, Bridgeport, Conn.

WRIGHT

Hoists
Trolleys
Cranes

Safety Library

From page 62

The book contains one or more illustrations for each code rule.

One of the things in favor of this book is its size being $8\frac{1}{2} \times 11$ which means that the diagrams are very large and clear. There are also arrows pointing out specific sections to be reviewed with special notations or references to code classifications.

In some parts of this book actual photographs are shown showing application and reference to code in various industries.

This is an excellent book and I think that it should be a part of every man's library as a supplement to the National Electrical Code.

—George MacDonald

Air Pollution

Air Pollution Abatement Manual. Chapter 8. The meteorology of Air Pollution. Published by Manufacturing Chemists' Association, 246 Woodward Building, 15th and H Streets, N. W., Washington, D. C. 1953. 39p. 75c. (Manual Sheet P-9).

Chemicals

Ethyl Chloride. Published by Manufacturing Chemists' Association, 246 Woodward Building, Washington 5, D. C. 1953. 15p. 25c. (Chemical Safety Data Sheet SD-50.)

Color

Color Standards and Color Research. Published by American Color Trends, Research Division of Faber Berren & Company, 500 Fifth Avenue, New York 36, N. Y. 1953. 20p. Free.

Construction

Injuries and Accident Causes in Carpentry Operations. Published by U. S. Bureau of Labor Statistics. 1952. 58p. For sale by the Superintendent of Documents, Washington 25, D. C. 35c. (Bulletin No. 1118.)

Railroads

The Railway-Highway Grade Crossing Problem. Economic Principles. By Kenneth Beggs. Published by Stanford Research Institute, Stanford, Calif. 1952. 55p.

MAGAZINE ARTICLES

Accident Statistics

Age and Industrial Accident Rates. By H. F. King and D. Speakman. *British Journal of Industrial Medicine*. January 1953, p. 51.

The Incidence of Accidents in Relation to the Annual Cycle. By Dr. M. S. Schulzinger. *Industrial Medicine and Surgery*. February 1953, p. 49.

Aeronautics

ALPA Enunciates Safety Policy. *Aviation Week*. February 2, 1953, p. 54.

New Approach to Prop Reversal. *Aviation Week*. February 2, 1953, p. 15.

Worst Air Craft Fires of '52. *North America Quarterly of the National Fire Protection Association*. January 1953, p. 231.

Burns

The Emergency Treatment of Burns in a Major Disaster. *American Journal of Nursing*. February 1953, p. 179.

Construction

Flashing Lights Help Traffic Safety Through Contractor Jobs. *Roads and Streets*. January 1953, p. 86.

Employees

Cut New-worker Accidents 78 per cent. By Asa P. Lombard. *Factory Management and Maintenance*. February 1953, p. 98.

The Right Man for the Right Job. By R. A. Hicks and others. *Industrial Medicine and Surgery*. February 1953, p. 69.

Fire Protection

Big Industrial Fires of 1952. *Quarterly of the National Fire Protection Association*. January 1953, p. 181.

Digger Breaks Gasoline Line Blast and Fire Injure 12. By Paul C. Ditzel. *Fire Engineering*. February 1953, p. 119.

Fire Protection Developments in 1952. By Percy Bugbee. *Quarterly of the National Fire Protection Association*. January 1953, p. 163.

Large Fire Losses of 1952.

Quarterly of the National Fire Protection Association. January 1953, p. 176.

Thirty Millions Lost in 44 Warehouse Fires. *Quarterly of the National Fire Protection Association*. January 1953, p. 207.

Trucks for Hazardous Areas. *Modern Materials Handling*. February 1953, p. 51.

Health

Heart Disease and Industrial Medicine. By Dr. Edward M. Kline. *Industrial Medicine and Surgery*. February 1953, p. 76.


Malingering with Reference to the Eye, Ear, Nose and Throat. By Dr. S. L. Shapiro. *Industrial Medicine and Surgery*. February 1953, p. 65.

Marine Industry

Shipboard Accidents. *Proceedings of the Merchant Marine Council*. U. S. Coast Guards. February 1953, p. 37.

Mines

Annual Review—1952—Health
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HOOD

Full Plastic Coated GLOVES ...

Maximum Resistance to Abrasion

Full Plastic Coated Hood PV-98

Seamless working surfaces for longer wear

Curved, natural-fit fingers

Liquid-proof for safety

Also available as PV-98, 12" gauntlet

These Hood gloves with *fully curved fingers* give greater comfort, plus maximum resistance to abrasion and wear. Made from a new, scientifically compounded formula which results in a perfectly fused film, these new gloves have a uniform coating with no weak spots. Both benefits have been proved

by Hood's "on-the-job" testing.

Hood makes a complete line of industrial rubber and plastic gloves that will help keep your safety standards high. Write today for our new illustrated catalog featuring the Hood Glove Guide, which shows you "how to choose the RIGHT Glove for EACH job".

HOOD RUBBER CO., Watertown, Mass.

FOR DISTINGUISHED SERVICE



National Safety Council Awards for Outstanding Records

THREE types of awards for outstanding performance in industrial accident prevention are provided for in the "Plan for Recognizing Good Industrial Safety Records" adopted in January, 1952, by the Industrial Conference and the Board of Directors of the National Safety Council.

The three types of awards are:

1. **THE AWARD OF HONOR**, the highest award, replaces the Distinguished Service to Safety Award. It goes to industrial establishments whose experience meets rigorous statistical standards, even though it may not be injury-free. It also goes to those which complete 3,000,000 manhours without a disabling injury.

2. **THE AWARD OF MERIT** has similar but less exacting requirements. The standards for non-perfect records are somewhat lower, and the minimum number of injury-free manhours needed to qualify is 1,000,000.

3. **THE CERTIFICATE OF COMMENDATION** is given only for no-injury records covering a period of one or more entire calendar

years and involving exposure of 200,000 to 1,000,000 manhours.

For qualifying calendar-year experience, all three types of awards are made automatically on the basis of annual reports submitted to the Council by members. The Award of Honor and the Award of Merit may also be made on special application in two types of cases:

1. Where a qualifying total of injury-free manhours is accumulated in some period other than a calendar year.

2. Where a current period of two or more years is to be used in evaluating injury rate improvement.

Publication of awards under this plan succeeds "The Honor Roll" department formerly published in the **NATIONAL SAFETY NEWS**. The foregoing is but a synopsis of the award plan. For a more complete and precise statement of eligibility requirements, members should refer to the plan itself. Details may be obtained by writing to Statistics Division, National Safety Council.

AWARDS OF HONOR

Aluminum Company of Canada, Ltd., Arvida Works.

Aluminum Company of America, East St. Louis Works.

Aluminum Company of America, Edgewater Works.

Aluminum Company of America, General Service Division.

Aluminum Company of America, New Kensington Works.

Aluminum Company of America, Sheet Aluminum Fabricating, Alcoa, Tenn.

American Car & Foundry Co., St. Charles, Missouri, Plant.

The American Sugar Refining Co., Baltimore, Md.

The American Sugar Refining Co., Chalmette Refinery.

Aragon Baldwin Mills, Rock Hill, S. C.

Baldwin-Hill Co., Trenton, N. J. (Entire company).

Boeing Airplane Co., Seattle, Wash. (Entire company).

Boston Gear Works, North Quincy, Mass. (Entire company).

The Buckeye Cotton Oil Co., Jackson Mill.

The A. W. Burritt Co., Stratford Division.

Caterpillar Tractor Co., East Peoria, Ill. (Entire company).

Chain Belt Co., Baldwin-Duckworth Div., Springfield, Mass.

The Champion Paper & Fiber Co., Canton, N. C., Unit.

Continental Steel Corp., Kokomo Works.

Deere & Co., Des Moines Works.

Deere & Co., Malleable Works, East Moline, Ill.

Dravo Corp., Pittsburgh, Pa. (Entire company excluding subsidiaries).

Electro Metallurgical Co., Sault Ste. Marie, Mich.

Fitchburg Paper Co., Fitchburg, Mass. (Entire company).

Fraser Paper, Ltd., Madawaska, Me.

General Electric Co., Nucleonics Division, Hanford Works.

General Mills, Inc., Mechanical Division, Minneapolis, Minn.

General Mills, Inc., 7th Ave., South & 1st St., Minneapolis, Minn.

Gillette Safety Razor Co., S. Boston, Mass. (Entire company).

The B. F. Goodrich Co., Hood Rubber Co.

The B. F. Goodrich Co., Tuscaloosa Plant.

Goodyear Tire & Rubber Co., Gadsden, Ala.

Graniteville Co., Graniteville, S. C. (Entire company).

Great Lakes Steel Corp., Michigan Steel Division.

A. P. Green Fire Brick Co., Mexico, Mo. (Entire company).

Hughes Tool Co., Houston, Tex., Main Plant.

International Business Machines Corp., Plant No. 2, Poughkeepsie, N. Y.

Kaiser Aluminum & Chemical Corp., Refractory Plant.

Kansas City Water Dept., Kansas City, Mo. (Entire company).

Kennecott Copper Corp., Utah Copper Division, Arthur Plant.

Kennecott Copper Corp., Utah Copper Division, Utah Refinery.

Lion Oil Co., El Dorado, Ark. (Entire company).

Lion Oil Co., Refining & Chemical Operations.

Manning, Maxwell & Moore, Inc., Watertown Plant.

The Maytag Company, Automatic Washer Div., Plant No. 2.

McCall Corp., Dayton, Ohio (Entire company).

F. H. McGraw & Co., Paducah, Ky. (Entire company).

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G-29

- Brown Blucher
- Full Cushion Insole
- Leather Lined Tip
- Stitched with DACRON
- DACRON Laces
- Leather Soles, GOODYEAR NEOLITE Rubber Heels



"Sea-Breeze"

NYLON MESH VENTILATED SAFETY OXFORDS

Will give you such comfort during the hot, sweltering summer days as you never dreamed!

Air actually "Breezes through the Mesh" into your shoe with every step—circulates, cools and refreshes your feet.

This cool, cool combination of completely Open Weave Nylon Mesh and Brown Leather will give you a super-smart appearance and long, long days of cool sea-breeze comfort.



"Air-Flow" VENTILATED SAFETY OXFORDS

Slipper-soft, woven vamp style with perforated leather vamp lining, allows "air-to-flow" through to the feet. Will give you that cool, comfortable feeling you long to have during the summer.

- Brown Woven Vamp
- Specially treated Insole
- Stitched with DACRON
- DACRON Laces
- Leather Soles, GOODYEAR NEOLITE Rubber Heels



G-28

ANOTHER IMPORTANT EXCLUSIVE!
GUARD-AIRE... the only
SAFETY SHOES available with

NEOLITE HEELS

THE HIGHEST QUALITY, LONGEST WEARING
HEEL AVAILABLE FOR EXPENSIVE SHOES TODAY!

TOUGH • SPRINGY • SKID-RESISTANT

Designed for more shock-absorbing comfort!

ALL GUARD-AIRE SAFETY SHOES NOW AVAILABLE WITH GOODYEAR NEOLITE HEELS!

FREE
CATALOG
ON REQUEST!



RECORD INDUSTRIAL COMPANY

Dept. CS, 3301 ARCH ST. • PHILADELPHIA 4, PA.



Look to this page each month for latest news about NSC services. Address requests for additional information, samples or prices to the Membership Dept.

How to Prevent Falls

This job training booklet takes a new approach to the problem of falls. It tells the story of a know-it-all worker named Pete—a well meaning character who tells everybody else how to avoid falls, but winds up on a stretcher when he forgets to practice what he's been preaching. Humorous cartoons combined with down to earth text make *How to Prevent Falls* eight pages of interesting education. Printed in two colors, 35/8" x 7 1/2" in size.

New Vacation Booklet

The 1953 vacation booklet is an unusually attractive training aid produced in full color. Titled *So You're Going on Your Vacation*, it offers eight pages of illustrated tips showing how to have more fun by playing safe—avoiding vacation hazards. It's a good safety promotion for the entire family, and for good employee relations, as well. Size 37/8" x 7".

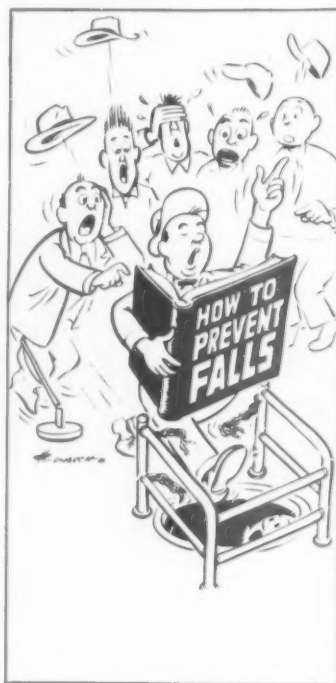
4 New Safety Films

A Gray Day for O'Grady scores a winning blow for better production—with safety. It's a jolting experience for the foreman who says: "I don't have time for safety. Production is my job. Safety is okay, but it oughta be done by the safety department."

O'Grady is just such a foreman. He has to learn the hard way—by almost losing his chance for a promotion—that accidents are very much his business. His production-wise boss first lets O'Grady sound off, then lowers the boom by showing him how a couple of

recent accidents tied up his time, brought production to a near standstill and spiraled his department's costs. Running time, 13 min. Produced on both 35mm sound slidefilm and 16mm sound motion.

Pick Your Safety Target shows foremen how to make sense out of the jumbled evidence of accident reports. It gives them a simple, workable system for classifying accidents, interpreting the facts and translating them into action. Once foremen know what to shoot at, they can blast their targets like clay pipes in a shooting gallery—starting on the big target, working down to the smaller ones.



The film combines cartoon and life shots in an interesting sequence. Running time, 13 min. The 35mm sound slidefilm is in color. The 16mm sound motion versions are available in both color and black and white.

An Accident Happens to Sam will make your workers laugh and learn as Miss Miller, the plant nurse, proves to skeptical Sam that accidents don't just happen. After listening to Sam pop off about safety and first aid, she decides it's high time to take him in tow; show him that accidents aren't funny, and that a little common sense can go a long way toward stopping them. With the superintendent's blessing, she puts him to work as a nurse's aid. She first softens him up by showing him some "scare" pictures of serious accidents, then explains why they happened. By the end of the day Sam is a safety salesman. Running time, 13 min. Produced on both 35mm sound slidefilm and 16mm sound motion.

You Can Take It With You tells the humorous story of a worker who won't go home. After a series of nerve-shattering home accidents the previous weekend, he just can't bring himself to face it again; decides to sleep in the locker room. It takes a lot of doing, but the boss finally convinces him that he can take the plant safety program home with him—stop home accidents just like they do on the job. The film touches on all phases of home safety from housekeeping, ladders and electricity, to lifting and home repairs. Running time, 13 min. The 35mm sound slidefilm is in color; the 16mm sound motion versions are available in both color and black and white.

Driver Training Aids

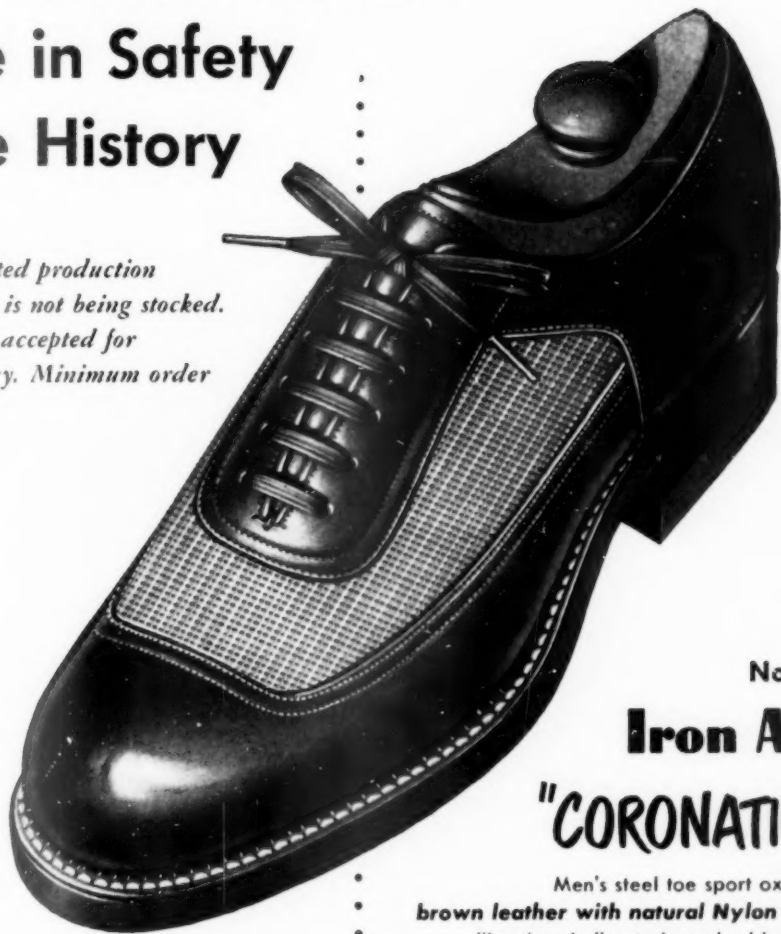
How to Be a Smooth Operator is a new booklet revealing the secret of smooth operation—the skillful coordination of driver, vehicle and traffic. It points out how smooth operation will prevent accidents, spare the driver's nerves.

—To page B2

Have You Seen It?

The Most Advanced Style in Safety Shoe History

*Due to limited production
this number is not being stocked.
Orders now accepted for
May delivery. Minimum order
24 pairs.*



No. 611

Iron Age **"CORONATION"**

Men's steel toe sport oxford in
brown leather with natural Nylon mesh.
"Leatherplus" outsole and rubber heel.



The Safety Shoe For Industrial America

Iron Age DIVISION

H. CHILDS & CO., INC., 1205 Madison Ave., Pittsburgh 12, Pa.

Ground Safety with the Pacific Airlift

(From page 21)

of high priority supplies and many thousands of important passengers every month to support our war effort in Korea.

More important to American mothers, it is airlifting back across the Pacific the American boys wounded in Korea—back to the hospitals nearest their homes, or to the specialized hospitals best suited to their particular cases.

Never in all history have war casualties received such efficient care. While I was in Tokyo, the 50,000th air-evacuee came through, on his way back to a hospital in America. He was Infantryman Frank R. Yocum of Allentown, Pa., with much praise for the "wonderful people of MATS."

The aerial packhorses of MATS work both ways across this wide ocean—and what a job they're doing! The Reds didn't know what they were starting when they picked on a MATS plane as their first target in Korea!

Effective Safety Program

Essential to the very life of MATS is the highly effective safety program. It makes itself felt in every phase of operation—but when an Air-Evac flight comes through with its load of wounded American boys, the safety effort really shows in full colors. Everything MATS has to offer is not too much for these boys! More about that later.

As a lusty infant, MATS had a sound safety heritage as a carry-over from ATC and NATS, but this program was streamlined and intensified. Soon it began to attract attention for its safety accomplishments. We safety editors began to take notice and, about two years ago, I started to explore the possibilities of bringing the story to our readers.

Col. W. L. Tubbs, Director of Ground Safety for the U. S. Air Force, under whose supervision the MATS ground safety program is carried out, recognized the value



Polar projection map shows 110,000 miles of MATS air routes circling globe.

of such an exposition in furthering the purpose of his office, and gave clearance for the project. His ground safety director for the Pacific Division of MATS, Ralph M. Riley at Honolulu, visited Chicago nearly a year ago and discussed plans for my story. Then he set up the schedule for my fall trip when he made his next official trip to Tokyo in July.

Not until I reached Washington to start the Tokyo hop did I learn, to my dismay, that Riley had been whisked away from Hawaii to become head of the ground safety program for the Air Defense Command, with headquarters in Colorado.

All Plans Made

When I reached Honolulu on the way to Japan, I was met at John Rodgers International Airport by Capt. Philip Reidy, new chief of the Personnel Services Division of PacD MATS, with headquarters at the nearby Hickam Air Force Base. He explained that, although Mr. Riley would not be able to accompany me, all plans had been made and I could expect full cooperation at Haneda Air Force Base at Tokyo. Harry Williams had not yet arrived to succeed Riley in the Pacific Division ground safety job.

Captain Reidy was right. I was met at Haneda by Lt. Col. Richard H. Cook, Director of Personnel

and Administration for the 1503d Air Transport Wing, which operates the MATS base at Haneda. With him were Capt. Myles Connelly, air communications officer who had the additional duties of public information officer, and Warrant Officer Harry Dreyfuss, ground safety officer at Haneda, who were to become my guides and companions for a week.

Never have I had more complete cooperation in quest of a story—and nowhere have I seen evidence of more sincere belief in the importance of safety.

High Level Interest

Everywhere I went—on a five-week trip covering about 20,000 miles—there was evidence of sincere devotion to the safety program and a full realization of its meaning in the over-all military effort. This interest was evident at every echelon in every operation with which I had contact—from top command on down.

It was put into words by Brig. Gen. Aubrey Moore, then commanding the 1503d Air Transport Wing at Haneda who told me of the terrific problem of bilingual educational efforts among the Japanese laborers, and of the successful attack on this communications problem by Safety Officer Dreyfuss.

"Our mission here is too important for us to permit the crippling effects of accidents," declared General Moore, "so you'll find full cooperation with the Ground Safety Office at every level in this command. If you fail to find what you're looking for, please come to me."

The importance of this acceptance of personal responsibility was reflected also in the dedicatory message for the new Haneda AFB publication, *Ground Safety News*, when it appeared in January. The message carried the signature of Col. Downs E. Ingram, now commanding the 1503d. He was Chief of Staff when I was at Haneda last September. The first paragraph of Colonel Downs' statement is especially significant:

WORK *in Safety...* WALK *in Comfort*

DORSEY SAFE-T-SHOES GIVE FULL PROTECTION

Protection against accident... Protection against fatigue!

Ruggedly built of select materials from the patented ARMORITE steel-flanged toe to the finest horsehide and cowhide uppers available, Dorsey Safe-T-Shoes are designed to furnish protection where protection counts most, plus solid comfort for long hours under the most severe working conditions. Compare Dorsey Safe-T-Shoes with them all and you, too, will say Dorsey gives greater protection . . . longer wear . . . more economy . . . plus all-day comfort on the roughest jobs.



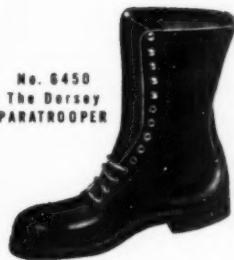
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The Dorsey CHAMPION

Outstanding in every way, the Champion is made from triple tanned shell horsehide with full leather toe lining, Dacron stitching and steel arch. It offers the maximum in Safety and Comfort on any job.



No. 7200
The Dorsey
EXECUTIVE



No. 6450
The Dorsey
PARATROOPER

Dorsey dress Safe-T-Shoes give the same comfort and protection plus a style and quality comparable with expensive nationally advertised footwear . . . at half their price.



FREE INSPECTION!

Mr. Safety Engineer:
Clip and mail this coupon today!

DORSEY SAFE-T-SHOE Company
1220 Market Street
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Gentlemen: Please send me one pair of your No. _____ Size _____ for free inspection. If not completely satisfied I agree to return these shoes to you within ten days.

SIGNED _____
TITLE _____
COMPANY _____
ADDRESS _____



"All of us, as members of this MATS organization, have particular responsibilities that are inherent to our individual jobs or assignments. There is, however, one universal responsibility that is incumbent upon every person regardless of his assignment. Safety is that responsibility."

This attitude was expressed again in another branch of our armed forces in the Far East—what was then known as the Japan Logistical Command, with headquarters in Yokahama. Here the JALCOM deputy commander, General Butler, assured me that "the safety effort is so important to the success of our job that every officer gives complete cooperation to Tom Allen's safety office." His deputy chief of staff for personnel, Col. R. Tourtillot, who has taken an active interest in Mr. Allen's work, said he is devoting his efforts to "getting the safety program down to the squad leader level," another way of saying the supervisor is the key man in putting across a safety program.

Cash Value of Safety

The economic value of a safety program is always measurable, but the entire Far East Command probably can offer no better proof of the cash value of safety than the Oppama Ordnance Works, under JALCOM. At Oppama an automobile factory has been converted to rebuild the battered jeeps and trucks that pour in by shiploads from the Korean war fronts.

I arrived at Oppama on Saturday afternoon. Col. John F. Harlan, commanding the Oppama operation, had just greeted his replacement, Colonel Stark, and had gone to his quarters to pack for his early departure for Washington—but he insisted on conducting my tour of the base personally.

I learned that Colonel Harlan had been in the Far East more than two years, and had spent about a year and a half of that time on the intensive job of commanding Oppama. I got the impression that he needed a rest, and



Battle weary Yanks wait on Korea field for transports to take them to rest and recreation centers in Japan.

wished to get back to the USA—and I felt guilty about getting him out of quarters on Saturday afternoon. But my fears were soon allayed when I noted the enthusiasm with which he began showing me what Ordnance had accomplished.

Assembly Line Speed

He dismissed his driver and drove the car as we circled about the vast works, stopping now and then at significant operations. An artificial mound in the center of the manufacturing area served as a lookout point, and we climbed to the top. In the distance we could see acres and acres of motor vehicles, separated by type, and lined up bumper to bumper, in orderly array. Closer by was a receiving area for cases of engines and other replacement parts, also covering many acres. Then we saw how vehicles were taken apart, piece by piece, as the parts were refurbished.

When we reached the assembly building, I could sense that this was the Colonel's pride and joy, as he asked a foreman to drive his car to the other end of the long structure, and we started through on foot, following the ponderous travel of the conveyor chain in its sub-floor channel. At the beginning we saw the naked frame of a truck hooked on, and we followed as scores of supply lines fed pieces to the growing vehicle, while Jap-

anese mechanics scampered all over it. At the far end it rolled out the door under its own power as good as new, ready again to serve the combat troops. Others would roll off steadily—one every 18 minutes.

"Impossible Without Safety"

With understandable pride, Colonel Stark indicated the entire layout with a wave of his arm.

"Now, you see what we're doing here," he commented. "All these vehicles are moved in quickly from the front lines, and are restored to first class condition—without a long and expensive trip to Z I.* With little time lost, they're back hauling supplies and personnel in Korea.

"There's no telling how many millions of dollars this plant is saving the American taxpayer—and you'll be interested in this fact: Oppama Ordnance Works would be an impossible dream without an active safety program!"

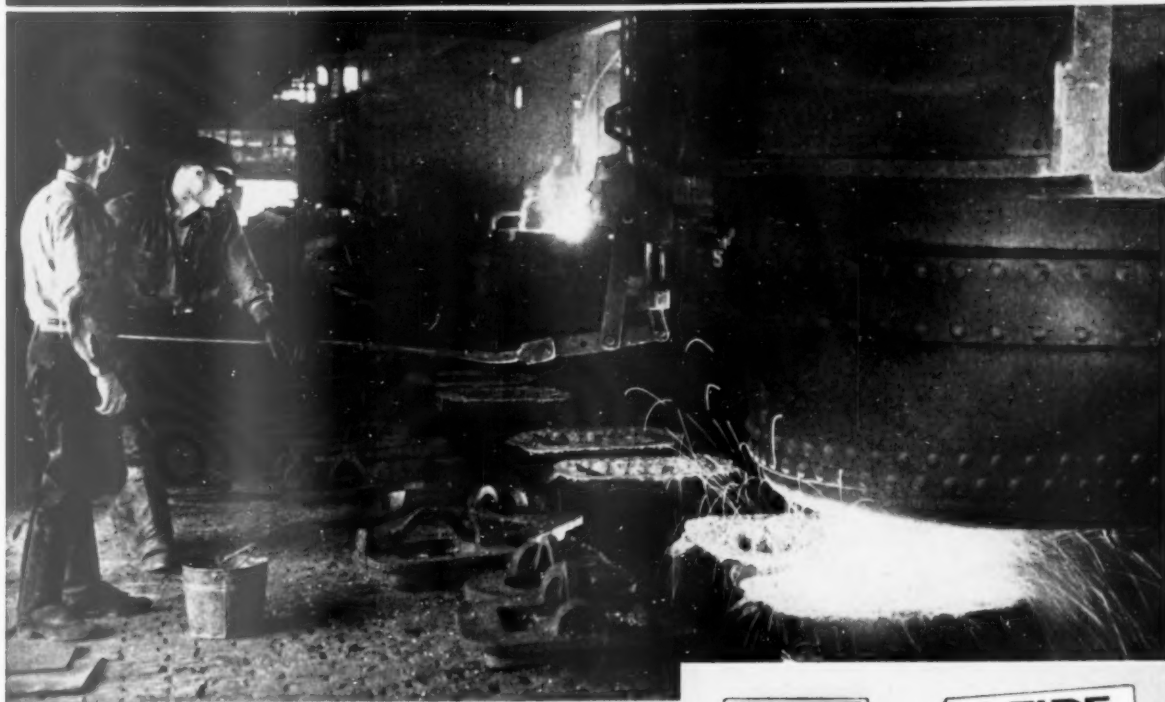
There were dozens of other instances proving the importance of the safety program to American military forces in the Far East—and attesting the personal interest of top brass, with its widespread influence on safety consciousness generally.

—To page 74

*Zone of the Interior, or continental USA.

STONEHOUSE SIGNS

For ACCIDENT PREVENTION



Pouring Molten Steel

High production is a fine goal. But with it goes the responsibility to protect and safeguard workers against the threat of accidental injury—even death.

Every production quota should include an effective safety program. It can be done with the help of

STONEHOUSE SIGNS

They work 24 hours a day...warning, educating, impressing upon workers the gospel of Safety.

There are hundreds of different Stonehouse stock-worded signs for prompt shipment. Special wordings also produced as desired.

Have you our complete Catalog? It's free on request.

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**SIGNS, inc. MANUFACTURERS • Stonehouse Bldg., 9th at Larimer
Denver 4, Colorado**

"Signs Since 1863"



ACCIDENT PREVENTION • *steel* SIGNS IN STANDARD COLORS AND DESIGNS

DANGER
NO ADMITTANCE
WITHOUT A PERMIT

A FIRE
MIGHT PUT EVERY
ONE OUT OF WORK
HELP THE MANAGEMENT
PROTECT YOUR JOB
NO SMOKING

NOTICE
— ALL INJURIES —
NO MATTER HOW SLIGHT THEY MAY SEEM
MUST BE REPORTED
TO THE FOREMAN OR
FIRST AID HOSPITAL
FOR TREATMENT

CAUTION
WEAR GOGGLES
WHEN USING
THIS MACHINE

CAUTION
KEEP
AISLES
CLEAR

 **FIRST AID
— ROOM —**

 **FIRE EXIT**

THINK
ACCIDENTS
ARE
AVOIDABLE
FORGET THE ALIBI

These facts made my job easy, because—as an editor representing the National Safety Council—I was accorded full cooperation in every area I visited.

For instance, Rear Admiral Murr E. Arnold, commanding the Naval Air Station at Kwajalein, met me when our MATS plane landed and took me to his home for a cooling drink (and one does appreciate a cooling drink in the tropics!) Incidents he recounted during my visit proved again how important top level safety consciousness can be when command decisions must be made.

On the MATS side at Kwajalein, this interest finds a parallel in Maj. Henry L. Boyd, executive officer, who is a frequent contributor to *Flying Safety* magazine. (To some people, this tiny atoll in the Pacific, not far from the equator, might not seem an ideal place for an assignment, but Major Boyd and his charming wife like it—and their 7-year-old daughter thinks it's perfect.)

Kwajalein Important

Kwajalein is on the "tomorrow side" of the International Date Line from the US, and its strategic importance, in view of America's global commitments, cannot be overestimated.

Of similar importance as a Pacific air base is the still tinier Johnston Island, 800 miles or so southwest of Honolulu. It is barely long enough for an airfield. Johnston Island could be cited as a condensed illustration of the importance of a safety program in the conservation of manpower. There's no room on this tiny hump of dry land for surplus personnel—no place for an "accident relief crew" to do the work of airmen who might be injured in occupational mishaps—so they can't afford to have accidents.

That's why the MATS commander of Johnston Island, Col. E. B. Birdsall, along with other command duties, has had to become such a specialist in personnel relations and safety. He and Maj. W. F. Flagler, director of person-



Johnston Island barely has room for airstrip.

nel, work closely with Staff Sergeant Boome on the island's safety program. (Colonel Birdsall showed it all to me on a tour of the island while my fellow passengers were eating the famous pancakes made by the chef in the island terminal restaurant.)

Cooperation on Guam

Guam, with its far more elaborate installations for both the Navy and the Air Force and attendant personnel, plus about 60,000 native population, follows through just as thoroughly on organized safety. John W. McCoy is Ground Safety Director for the Naval Air Station at Agana, and he is accorded full cooperation—from the big Naval base at one end of the island to the 319th Bombardment Squadron at Anderson Field, near the other end. This cooperation includes officials of the Trust Territorial Government at Agana, which, incidentally, has become a member of the National Safety Council since my visit.

But my trip was concerned with the safety program of MATS, and I was rewarded with a glimpse into one of the most thoroughly integrated safety efforts I have seen anywhere. Every individual in the whole MATS organization seemed

to know his part in the Safety program and to be enthusiastic about it. This attitude was reflected even among the personnel of the contract carrier airlines serving MATS on its global mission.

Starting the trip from Washington, D. C., where I was privileged to get suggestions and pointers from Colonel Tubbs, who must be concerned about the ground safety program, not only of MATS, but of the entire U. S. Air Force around the world, I had a chance to visit MATS headquarters, at nearby Andrews Air Force Base.

Headquarters Busy

In the busy Ground Safety Office, Lamar Renfro had just taken over as director, in place of Hal Rush, who had moved on to a similar post at Warner-Robbins AFB. Warrant Officer Don Ostlund, who aided me from the start, and other members of the staff showed me how this command directs and helps ground safety officers at MATS bases around the globe—issuing directives, answering queries and supplying program materials. They furnished names of key persons who would answer my questions at points I would visit.

I crossed the continent non-stop in a MATS plane that was on its way to California from Frankfurt, Germany, and had my first observation of the way MATS does things safetywise. Rules for passenger conduct, cargo handling and other activities affecting the safety of the plane and its load were observed rigidly.

So far as the peace of mind of passengers is concerned, I believe MATS is more conscious of possible psychological factors than most of the scheduled lines I've traveled. To begin with, the passengers were mostly military personnel of all ranks and most, probably, had done much flying. Yet the plane crew took pains to explain everything, as though it were our first flight.

Since MATS fliers are trained for the grim business of war and,

—To page 80

Superstitious....

about
breaking
a
mirror?



"Seven years' bad luck," Mr. Dillberry moaned. Then he proceeded to nick his ear while shaving. "Starting already," he told himself.



Next day the psychiatrist looked down at the limp figure on his couch.

"Coincidences," he said. "You were so nervous about the mirror you got careless. The burnt finger, the bump on the head, the stubbed toe. It all fits. All except the slip-accident on your office floor—and I suggest you talk to your maintenance man about that."

"It's the wax," the maintenance manager explained. "We have to protect the floors from the daily pounding

they take. But once they're buffed and walked on, they get slick as a mirror."

Mr. Dillberry winced. "Don't use that word."

From his casualty insurance company, he learned about the LEGGE System of Safety Floor Maintenance. Learned that polished floors *don't have to be slippery*. Because LEGGE Safety Polishes go 75% beyond Underwriters' Laboratories requirements for slip-resistance—yet shine floors bright as a new penny. And the protection *lasts*. Tests show LEGGE polishes stay on the floor up to 8 times longer than most waxes. That's a big saving in materials and labor.

Soon things got back to normal. Mr. Dillberry forgot his superstition. But first he ordered a 7 years' supply of LEGGE Polishes.



FREE BOOKLET: We'd like to introduce you to another man who learned about LEGGE Safety Maintenance—the hard way. Clip coupon or write for our "Mr. Higby" booklet. Entertaining, full of vital information about your floors.

Walter G. Legge Company, Inc., 101 Park Ave., New York 17, N. Y.

Walter G. Legge Company, Inc.
101 Park Ave., New York 17, N. Y.

N-4

- ☐ Please send a reprint of this advertisement.
- ☐ Send me your FREE booklet, "Mr. Higby Learned about Floor Safety".
- ☐ Have a Legge Safety Engineer phone me for an appointment.

Name _____
Firm _____
Street _____
City _____ Zone _____ State _____



This SMITHway walkway—covered with slippery drilling mud—is safe to walk on.

A.O. Smith 100% SERRATED Safety Grating Pays Its Way

- **In money saved** . . . by reducing accidents
- **In man-hours saved** . . . by fewer accidents
- **In maintenance saved** . . . locked-for-life construction cuts maintenance costs
- **In value** . . . 100% serrated surface at no extra cost, no premium price!

MAKE SURE of SAFETY

A. O. Smith 100% Serrated Safety Grating, completely engineered and fabricated to your individual requirements, is available from local stocks listed below.



A.O. Smith CORPORATION

Milwaukee 1, Wisconsin
International Division
P. O. Box 2023, Milwaukee 1, Wisconsin

Local Stocks Available at:

Atlanta: Golian Steel & Iron Co.
Chicago: Central Steel & Wire Co.
Dallas: Vinson Supply Co.
Denver: Eaton Metal Products Co.
Detroit: Central Steel & Wire Co.
Houston: Ferrous Products Co.
Kansas City: A. M. Castle & Co.
Los Angeles: Bufnel Co., Ltd.
Milwaukee: A. O. Smith Corp.
Minneapolis: Kellor Steel, Inc.
New Orleans: Equitable Equipment Co.
New York: A. O. Smith Corp.
Portland, Ore.: Pacific Steel Warehouse
San Francisco: A. M. Castle & Co.
Seattle: A. M. Castle & Co.
Shreveport: Superior Iron Works & Supply Co.
Toledo: Baron Steel Co.
Tulsa: Braden Steel Co.

see our catalog in
**PLANT
ENGINEERING
FILE**
or write for copy



Isotopes Aid Sanitation



One of the uses of radioactive isotopes is to test the effectiveness of cleaners and other sanitation products. Here Rosemary Annos and Leslie Alt of the Diversey Corporation's laboratories are taking the count per minute of a radioactive sample from the nuclear scaling unit at left. At left is a count rate meter which serves as a monitor and a rate meter.

RADIOACTIVE ISOTOPES from the government's atomic stock pile are among the newer aids to industrial sanitation. They are being used to test the effectiveness and behavior of sanitation products.

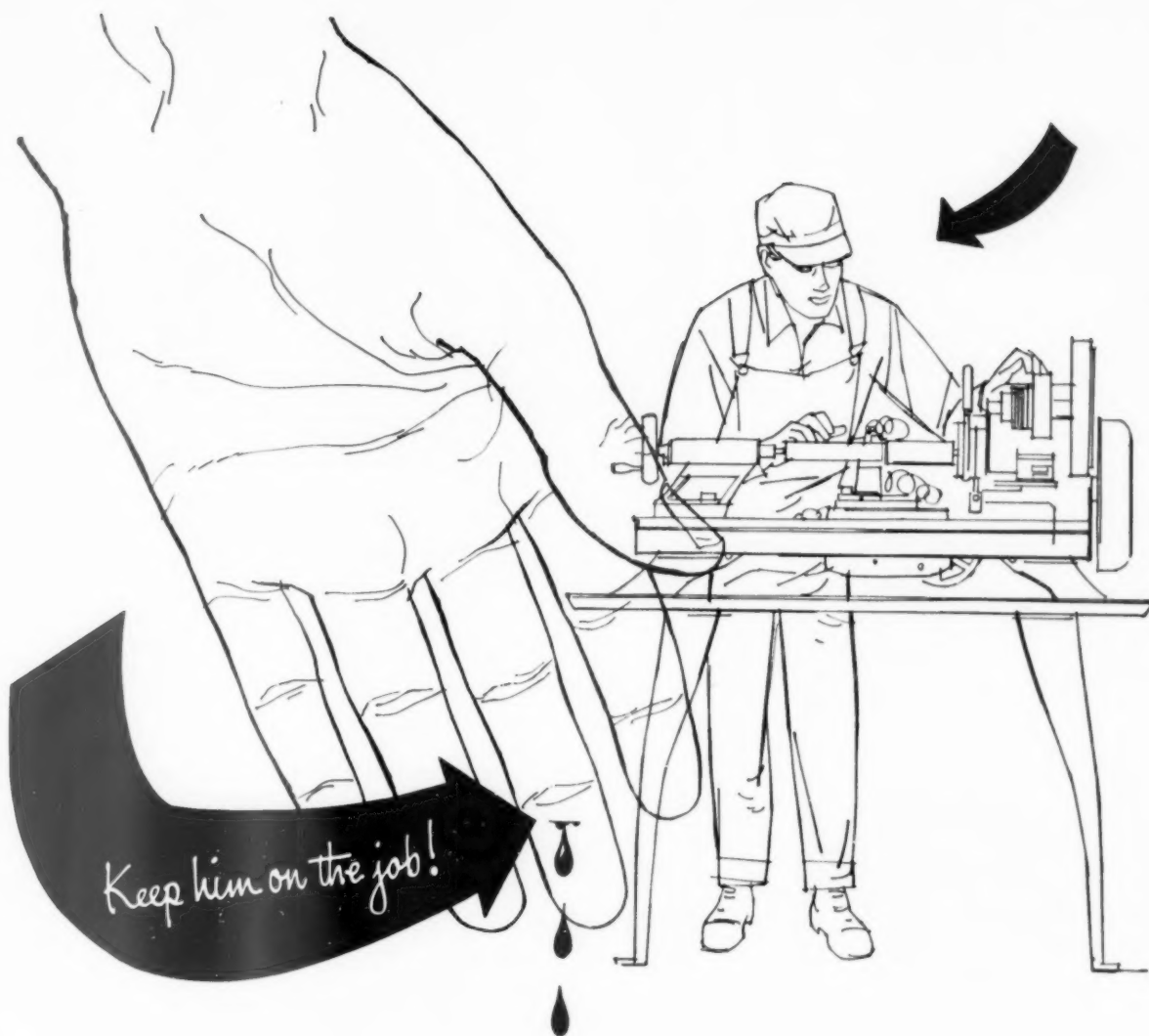
In testing cleaning compounds, for example, tagged or radioactive carbons are being incorporated into soil. The soil is then spread upon the surface to be cleaned. After cleaning, small amounts of radioactive soil remaining on the apparently clean surface could be detected by the electronic instrument. The soils are detected quantitatively. Where no count could be measured it would indicate that the cleaner was very effective in removing the particular soil.

In addition to using radioactive material to determine the effectiveness of cleaners in removing soil from utensils, wall and floor surfaces and equipment in hotels, hospitals and restaurants, the new research technique is expected to solve such problems as determining corrosion or absorption of inhibitive chemicals on metal, the amount of absorption of glass and ceramic materials, the tracing of bacteria (made radioactive) to

learn where they lodge and multiply, and the study of insecticidal action based on tagged carbon introduced in the insecticide.

The accompanying illustration is from the Diversey Corp., Chicago, which is carrying on nuclear research that is expected to aid in the development of products for greater institutional sanitation.





Hexachlorophene in Formula #99 Antiseptic Soap cuts absenteeism by combating dermatitis and infections

Because of a tiny cut, this man may not work tomorrow! He'll wash his hands, bandage the cut, and hope everything will be all right. *Maybe* it will.

If you've supplied him with Formula #99 Antiseptic Soap in the washroom, Hexachlorophene—the only germicidal agent known that keeps its antiseptic power in soap—will reduce the chances of infection tremendously. Regular, daily washing with Formula #99 removes *up to 95%* of skin bacteria.

Ordinary washroom soaps don't have this antiseptic power. They leave skin bacteria that can aggravate any small cut, skin irritation or abrasion into a case of dermatitis. Armour developed Formula #99 Antiseptic Soap to combat this health problem—and to help overcome the tremendous loss of man-hours that results. Formula #99 is also *lanolated* to help replace natural skin oils.

Send the coupon today for further information and samples. See for yourself how Formula #99 can save man-hours by combating dermatitis.

CLIP AND MAIL THIS TODAY!

Please send me:

- ☐ "Antiseptic Soaps for Industrial Use"
☐ Formula #99 Liquid Antiseptic Soap Sample

Name Title

Firm

Address

City Zone State

Formula #99 Antiseptic Soap is available through
your local Sanitary Supply Jobber

ARMOUR

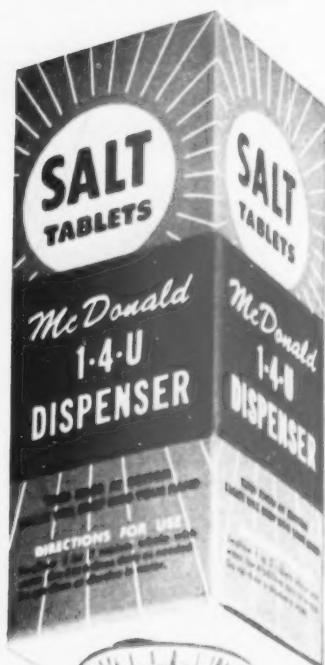
Industrial Soap Department

Armour and Company • 1355 West 31st Street • Chicago 9, Illinois

WHEN heat IS OPPRESSIVE

Workers feel better, work better if they take McDonald 1-4-U Salt Tablets. Handy throw-away cartons dispense 1000 or 500 tablets. Three types of tablets—impregnated to prevent nausea; salt plus dextrose; and plain.

WRITE FOR BULLETIN AND PRICES



Fertilizer Section Begins Program



THE FIRST MEETING of the executive committee of the National Safety Council's Fertilizer Section was held at Council headquarters January 15. In the above group are: Seated—J. S. Fields, Phillips Chemical Company; Ned H. Dearborn, president, NSC; A. B. Pettit, The Davison Chemical Company; Edwin C. Kapusta, National Fertilizer Association. Standing—Roger Hugg, International Minerals and Chemicals;

Curtis A. Cox, Virginia-Carolina Chemical Corp.; J. Lauren Shopen, Consumers Cooperative Association; F. Wayne High, The Baugh Chemical Company; Paul T. Truitt, president, American Plant Food Council.

Before receiving section status at the December 15 meeting of the Industrial Conference, the fertilizer group functioned as a committee of the Chemical Section.

Plant and Community Salute Safety



PROMOTION OF SAFETY in Michigan's Saginaw-Bay region took to the airwaves recently when The Electric Auto-Lite Company saluted the National Safety Council. Stressing plant and highway safety, Auto-Lite executives, community leaders and police officials in the Bay City-Saginaw area were interviewed over Radio Station

WGRO, Bay City. The 15-minute program was tape-recorded at Auto-Lite's Bay City plant where signs and posters at three special plant displays carried safety messages to Auto-Lite men and women. In addition, Auto-Lite also reviewed its safety devices on machinery and other protective measures.

HERE'S

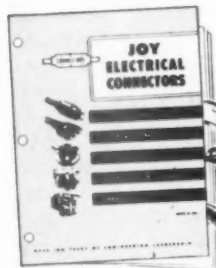
VISUAL PROOF

that **JOY PLUGS**
are
Distortion-Proof



Taken at one two-thousandths of a second, unretouched photo reproduced above shows a JOY 372M electrical connector absorbing the full impact of a heavily swung 10 lb. sledge hammer. Punished by twenty-four (24) similar blows while being so photographed the connector was then thoroughly tested for defects with results as reported at right.

When the problem is selecting electrical connectors for industrial applications and units in use *haven't* quite measured up to requirements, it's time to switch to JOY. Factory molded into one-piece Neoprene insulated units, JOY connectors can't crack or be smashed out-of-shape when dropped — won't become mushy when smeared with grease or oil — and are absolutely moisture-tight. Cork-like action of their Water-Seal also prevents metallic dust from accumulating around contacts when they're connected. Why accept less when the best actually *costs less* in the long run?



Ask for your free copy of this attractive two-color sixteen page Bulletin. Numbered MC108 it illustrates and describes many of the popular electrical plugs and receptacles JOY makes for Industry.



Consult a Joy Engineer



More than 100 years of Engineering Experience

JOY MANUFACTURING COMPANY

HENRY W. OLIVER BUILDING, PITTSBURGH 22, PENNSYLVANIA
IN CANADA JOY MANUFACTURING COMPANY (CANADA) LTD. GALT, ONTARIO

TEST REPORT

Date: 2-4-53

No. 387

OBJECT:

To determine the effect of heavy blows on a 372M connector.

PROCEDURE:

A 372M plug was selected at random from stock, placed on an anvil and struck 24 times with a 10 lb. sledge hammer. Impact force of each blow being approximately 40 foot pounds.

TEST DATA:

VISUAL INSPECTION: No distortion of original shape. Center pin slightly misaligned, however plug's ability to engage mating connectors unimpaired.

FLUOROSCOPE INSPECTION: Conductors intact and undamaged. No intermittent electrical opens in wiring.

ELECTRICAL TEST: 1500 volts AC RMS applied for 5 continuous minutes. Insulation between contacts did not break down.

COMMENTS:

JOY 372M plug relatively undamaged by blows described above. Should still render many years of satisfactory service under normal conditions.

Alfred V. Mucci

A. V. MUCCI
Supervisor Inspection

M.E. 353.3

BEAT THE HEAT!

Avoid Costly WORK SLOWDOWNS!

NOW is the time to check your hot weather supplies. Be sure your workers are protected against heat fatigue by ordering salt tablets and dispensers from StaSafe today.

STASAFE ALL-METAL DISPENSERS

Simple—Sturdy—Sanitary! Made of a corrosive resistant alloy, these dispensers carry a five year guarantee against mechanical failure. Easy to operate, they are equipped with lock and key, wall bracket and inspection window. StaSafe Junior holds 1,500 tablets, Midget holds 600.



JUNIOR



MIDGET

FAIRWAY PLASTIC DISPENSERS

Made of molded plastic, these Fairway dispensers are moisture, dust and corrosion resistant. They protect your tablet supply from contamination. All Fairway plastic dispensers have a visible tablet discharge control, are furnished with lock top, key, mounting bracket and screws. The Junior holds 1,500 tablets, the Midget 350.



MIDGET



JUNIOR

FAIRWAY CRYSTAL DISPENSERS

Designed to satisfy the demand for an attractive, sanitary, low-cost dispenser—one that needs no servicing or re-filling! Each unit is filled with enteric coated tablets and sealed at the factory. When the tablets are gone, just throw the dispenser away. The Crystal holds 500 tablets, the Crystal-M 1,000.



CRYSTAL



CRYSTAL-M

FAIRWAY TABLETS

For the prevention of heat sickness due to loss of salt, order Fairway enteric coated tablets today, either plain salt or combination salt and dextrose.



BE PREPARED!

Send Today for Bulletin No. 590

STANDARD SAFETY EQUIPMENT COMPANY
232 WEST ONTARIO STREET CHICAGO 10, ILLINOIS

NEWARK 4, N. J.
597 BROADWAY

CLEVELAND 6, OHIO
2029 EAST 102nd ST.

LOS ANGELES 16, CAL.
2952 CRENSHAW BLVD.

Pacific Airlift

—From page 74

presumably, would have no time for the little niceties, this fact surprised me. I suppose the theory behind it, from a safety standpoint, is that calm and informed passengers would not be so likely to commit acts that would jeopardize flight safety. Commander Crooks (this was a Navy R6D MATS plane from Squadron VR3) invited passengers forward, two at a time, to see the bewildering array of controls in the cockpit, and he seemed to enjoy answering our questions.

I flew from Travis Field, Calif., to Haneda AFB at Tokyo on the Pan American Clipper "Cathay," one of the 60 contract planes that have been in the service of MATS since soon after the outbreak of the Korean conflict. Here again, it seems, standard safety procedures have fitted this "Civil Air Reserve Fleet" operation right into the MATS program, for the contract carriers have sustained the remarkable MATS safety record.

Another fortunate circumstance, from where I sat, was that the carefully selected crews seemed to extend themselves to make the trip as pleasant as possible for the passengers—particularly the boys who were on their way to Korean battlefields. The first leg crew, starting from Travis, was replaced at Honolulu, and it, in turn was replaced by a third crew at Wake Island for the final hop to Haneda.

Passengers across the Pacific represented all the military services, and all ranks. A technical representative for a radio firm serving the Armed Forces and I were the only civilians aboard. Some of the military personnel would be based in Japan, but most would go on to Korea. I wondered how many would not come back.

This thought probably occurred also to Stewardess Naomi Lindstrom of Seattle, who was with us from Travis to Honolulu. Busy serving coffee as the sun came chasing up after us, she noticed some of the passengers appeared a bit glum. Perhaps the coffee helped, but I think her jolly banter did more to clear away the gloom, for soon all the boys were laugh-

ing and talking—and looking forward eagerly for a first glimpse of Hawaii.

Probably the youngest were two seamen of a five-man helicopter crew of the Air Rescue Service, search and rescue branch of MATS. They, of course, were headed for Korea, and they were quite proud of their mission. As one of the boys told me, "I'd rather help save them than see them wounded."

When we landed at Tokyo, I was met by Colonel Cook, Captain Connelly and Warrant Officer Dreyfuss, who conspired to keep me hopping for a week when they drew up my visiting schedule—as full as any I've ever tried to follow. This was where I began to learn how the ground safety program has become a vital part of MATS operation—and, by projection, what it means to our whole military effort.

The second half of this article, giving some examples of the application of the ground safety program in MATS, will appear in NATIONAL SAFETY NEWS for May.

Mammoth Board Commands Attention

TOWERING 21 feet above street level, a huge, brilliantly-colored safety board greets all Mooresville Mills employees at the main gate when they report for work each day—and has proved to be a highly effective means of stimulating interest.

The board was the "brain child" of William Norman, safety



National Safety News, April, 1953

HERC-ALLOY

SLING CHAINS

PREFERRED...
because of
proved advantages
in use

Production Executives and Safety Directors look for many things in a sling chain—greatest strength, maximum safety, lighter weight, handling ease, resistance to wear, minimum cost against service life.

Because they found all these advantages in HERC-ALLOY by on-the-job experience, it became a matter of course to prefer and specify HERC-ALLOY Sling Chains.

Write for illustrated Data Book No. 3 which contains helpful information on sling chain selection and use.

COLUMBUS MCKINNON CHAIN CORPORATION

(Affiliated with Chisholm-Moore Hoist Corp.)

"See us at Booth 1526—Philadelphia—May 18-22
5th National Material Handling Exposition"

GENERAL OFFICES AND FACTORIES: TONAWANDA, N. Y.

District Office: New York • Chicago • Cleveland
Other Factories at Angola, N. Y., Dixon, Ill., St. Catharines, Ont.,
Can., and Johannesburg, South Africa.

When servicing costs are high as the lights...



Lower Both Lights And Costs With Thompson Hangers!

You're losing money when you use two men and a lift truck to service lighting fixtures . . . and you're risking someone's neck! THOMPSON disconnecting and lowering HANGERS facilitate rapid, safe, efficient floor-level maintenance of high-bay lights.

You can assure maximum round-the-clock lighting efficiency by following a planned maintenance program. And remember . . . *there is no faster, safer or more economical means of servicing overhead lights than with THOMPSON HANGERS.* Simple manual operation is exercised at floor level.

Write today for new illustrated Bulletin TH52 for additional details.



1. DISCONNECT 2. LOWER 3. SERVICE 4. REPOSITION 5. REPEAT

THE THOMPSON ELECTRIC CO.

1199 POWER AVENUE • CLEVELAND 14, OHIO

director, and was designed by Bill Powell, plant engineer, and executed by Fletcher Davis, Public Relations.

Information carried on the board includes safety records by days, months and years; and up-to-date record of each department; and a yearly record of lost-time accidents suffered in the entire operation of Mooresville Mills.

The feature attraction of the board is a lighted circular "clock" that registers each day of the month. An arrow points to the current 24-hour period and for each day Mooresville Mills completes without a disabling injury, a green bulb is left burning.

Should an injury occur on any day, the green bulb is replaced by a red bulb.

Other information included on the board indicates accidents suffered thus far this year, total days operated since last injury, accidents each month.

Personals

—From page 44

New York Loss Prevention Department of Liberty Mutual Insurance Company, according to an announcement by S. Bruce Black, president of the company.

Mr. Bowman started with the company in 1940 and after working for a year in New York City, he was sent to Buffalo as resident engineer. He returned to New York in 1948 as service representative handling national risks in the loss prevention department until his recent promotion.

He is a member of the American Society of Safety Engineers and the greater New York Safety Council.

Safety Tools

—From page 68

stretch the life of his vehicle, and leave him relaxed and pleased with his job at the end of the day. 24 pages, 3" x 5".

A new type of Safety Dash Sticker is now available. Produced on pressure sensitive cards, they stick to any type of surface, yet remove easily and cleanly. They are a series of bright, 4-color safety reminders to keep

drivers on their toes. Carefully chosen subject matter makes them equally effective for truck drivers, bus operators and passenger car drivers. Size 3" x 6", in sets of 12 different stickers.

Driver memo pads for jotting down short safety reminders for your drivers. Each memo sheet carries a miniature safety poster. The memo pads are available only in sets. A set consists of 48 pads, each pad bearing a different safety reminder, with 25 memo sheets to a pad. Size 4" x 4½".

Traffic Safety Leaflets

Two leaflets are available to support the May *Operation Safety* theme, "Check Your Car. Check Accidents."

Portrait of the Missing Link features a 10-point vehicle safety check list, and sells drivers on the need for keeping their cars in safe condition. *Make Safe Driving a Habit* illustrates the lifesaving combination of safe driving habits, safe walking habits and a safe car. Both leaflets are 3½" x 6½" in size.

Safety Leaders

—From page 37

Group C

Maxwell House Div., General Foods Corp., San Leandro, Calif.

National Biscuit Co., Portland, Me.

National Biscuit Co., Cleveland, Ohio.

The Glidden Co., Feed Mill Division, Indianapolis, Ind.

National Biscuit Co., Cone Bakery, Dayton, Ohio.

Continental Baking Co., Portland, Oregon.

General Mills, Inc., Keokuk Purity Oats Mill, Keokuk, Iowa.

Ralston Purina Co., Ry-Krisp Division.

Weber Baking Co., Division of Interstate Bakeries Corp., El Centro, Calif.

Holland Rusk Bakery, National Biscuit Company, Holland, Mich.

General Foods Corp., Minute Tapioca Plant, Orange, Mass.

The Quaker Oats Co., Depew, N. Y.

National Biscuit Co., Battle Creek, Mich.

The Quaker Oats Co., Tecumseh, Mich.

National Biscuit Co., Bread Bakery, Plattsburgh, N. Y.

DIVISION III

Group A

Mission Creameries, Inc., San Jose, Calif.

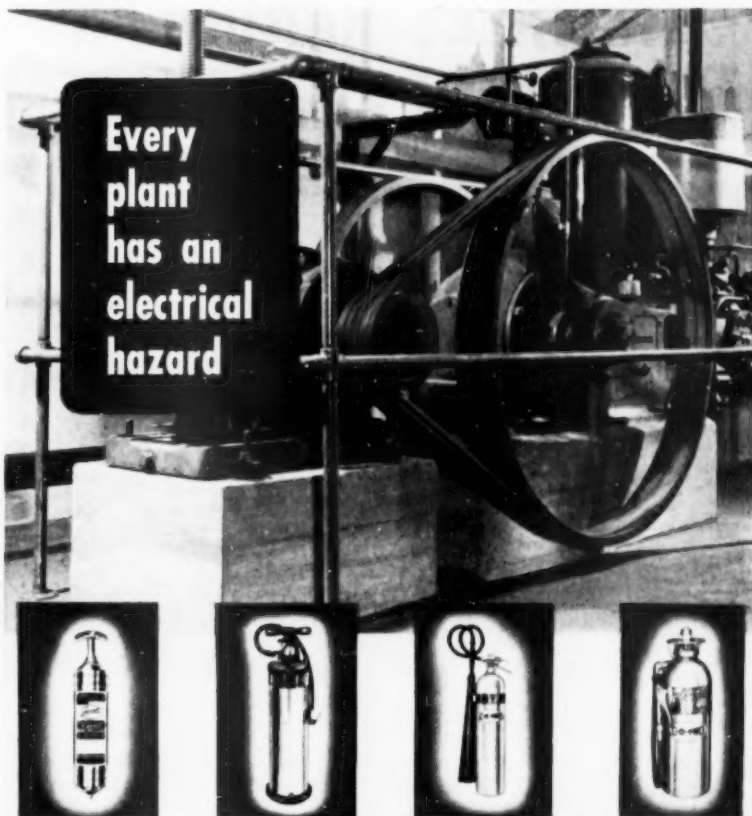
Group B

Wheeler Cheese Co., Green Bay, Wis.

The Borden Co., Limited, Tillsonburg, Ont.

—Next page

There's a Pyrene for every fire hazard



These extinguishers are for electrical fire hazards: (l to r) Pyrene Vaporizing Liquid Pump and Pressure Types; C-O-Two Carbon Dioxide Type; C-O-Two Dry Chemical Type.

PLAY SAFE—don't skimp on fire protection

We don't know what *your* special fire hazards are. But we do know that very few industrial plants have all the protection they need. So we urge you to make sure *you* have enough and we urge you to get the best. Your local Pyrene jobber has the right Pyrene® equipment to cope with any fire hazard you may have—everything from hand extinguishers to automatic systems. He also carries Pyrene parts and recharges. One call to him, one purchase order, one invoice will take care of any need you may have. Write us for his address.

*T.M. Reg. U.S. Pat. Off.

Portable fire extinguishers: vaporizing liquid, soda-acid, foam, cartridge-operated, carbon dioxide, dry chemical, and pump tanks • **Wheeled extinguishers:** soda-acid, foam, carbon dioxide, dry chemical types • **Air foam play pipes** • **Systems** for special hazards



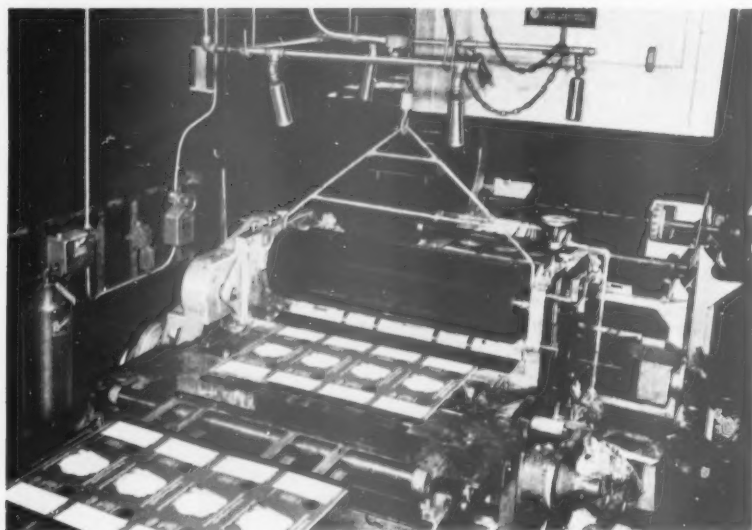
PYRENE MANUFACTURING COMPANY

583 Belmont Ave.

Newark 8, New Jersey

Affiliated with C-O-Two Fire Equipment Co.

SHERWIN-WILLIAMS INSTALLS RANDOLPH AUTOMATIC FIRE SYSTEM

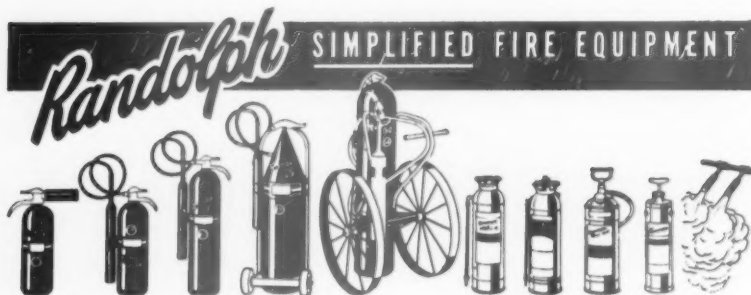


The Sherwin-Williams lithographic equipment presented an unusual and worrisome fire hazard, but this Randolph Automatic System not only automatically detects and extinguishes any fire that might occur, but also shuts down the equipment.

Kills Fire, Sounds Alarm and Shuts Down Machinery

As in the Sherwin-Williams installation, Randolph Systems, in addition to automatically killing the toughest fires in split seconds, can also be equipped with duct and door closers, motor, fan and machinery shut-offs, warning alarms and other auxiliary safety devices. Systems are designed for both local application or total room flooding and are ideal for dip tanks, baking ovens, spray booths and hundreds of other applications.

Free Catalog and Engineering Service Available without Cost
Randolph's FIRE HAZARD INDEX gives correct equipment and methods for protection against 590 typical fire hazards. Write for your free copy today. Address: Randolph Laboratories, Inc., 2 E. Kinzie St., Chicago 11, Ill.



Group C

The Borden Co., Limited, Ingersoll, Ont.

The Borden Co., Limited, Kemptville, Ont.

Kraft Foods Co., Milledgeville, Ill.

Kraft Foods Co., Chehalis, Wash.

Kraft Foods Co., Stockton, Ill.

Kraft Foods Co., Galena, Ill.

Kraft Foods Co., Springfield, Mo.

Southern Dairies, Inc., Christiansburg, Va.

Southern Dairies, Inc., Chattanooga, Tenn.

DIVISION IV

Group A

The American Sugar Refining Co., Baltimore Refinery.

Group B

H. J. Heinz Co., Berkeley, Calif.

General Foods, Limited, Montreal Plant.

Group C

H. J. Heinz Co., Tracy, Calif.

H. J. Heinz Co., Salem, N. J.

Morton Salt Co., Hutchinson, Kans.

Birds Eye Div., General Foods Corp., Woburn, Mass.

Libby, McNeill & Libby, Kokomo, Ind.

General Foods, Limited, Cobourg, Ont.

Smith Brothers, Inc., Poughkeepsie, N. Y.

DIVISION VI

Group A

General Cigar Co., Division Street, Kingston, Pa.

General Cigar Co., Philipsburg, Pa.

Group B

Bayuk Cigars, Inc., Tenth Street Plant.

General Cigar Co., Frederick Branch, Lancaster, Pa.

DIVISION VII

Group A

Schenley Distillers, Inc., Frankfort, Ky.

National Distillers Products Corp., Frankfort Div.

Group B

Brown-Forman Distillers Corp., Louisville, Ky.

National Distillers Products Corp., Pennsylvania Div.

Schenley Distillers, Inc., Lexington, Ky.

Hunter-Wilson Distilling Co., Gwynnbrook, Md.

Old Farmer's Distillery, Athertonville, Ky.

Schenley Distillers, Inc., Bardstown, Ky.

The Calvert Distilling Co., Lawrenceburg, Ky.

DIVISION VIII

Los Angeles Brewing Co., Los Angeles, Calif.

FLUID MILK DIVISION

Group A

Carnation Co. of Oklahoma, Tulsa, Okla.

Group B

Sheffield Farms Company, Inc., Chemical Div.

Group C

The Borden Co.—Michigan Milk Div.,

McNichols Branch.

The Borden Co.—Michigan Milk Div.,
East Detroit Branch.

Borden's Milk & Ice Cream Co.,
Racine, Wis.

Borden's, Jersey City.

Sheffield Farms Co., Inc., Cortland
District.

Borden's Ice Cream Co., Division of
The Borden Co., Dothan, Ala.

Southern Dairies, Inc., St. Peters-
burg, Florida.

Borden's, LaFayette, Ind.

Borden's, Marion, Ohio.

The Moore Dairy, Lancaster, Pa.

Borden's, Washingtonville.

Borden's, Mansfield, Ohio.

Sheffield Farms Co., Inc., Hobart
District.

Sheffield Farms Co., Inc., No. Penna.
District.

GLASS AND CERAMICS

PLATE GLASS DIVISION

Pittsburgh Plate Glass Co., Works
No. 19.

GLASS PRODUCTS DIVISION

Group A

Kimble Glass Co., Subsidiary of
Owens-Illinois Glass Co., Vineland,
N. J.

Group B

Owens-Illinois Glass Co., Clarion,
Pa., Plant.

CERAMICS DIVISION

Gladding, McBean and Co., Los An-
geles Plant.

MACHINE AND MOLD SHOPS DIV.

Owens-Illinois Glass Co., Oakland,
Calif., Central Mold Shop.

MARINE

SHIPBUILDING AND REPAIR DIV.—

GOVERNMENT

Upper Mississippi Valley Div., Corps
of Engineers.

Corps of Engineers, Southwestern
Div.

SHIPBUILDING AND REPAIR DIV.—

PRIVATE

Heavy Yards

Dravo Corp., Engineering Works Div.,
Neville Island, Pittsburgh, Pa.

Light Yards

Erie Railroad Co., Jersey City, N. J.
United States Steel Corp., Marine
Ways, Clairton, Pa.

Ashland Oil and Refining Co., River
Repair Terminal.

Dravo Corp., Engineering Works
Div., Wilmington, Del.

HARBOR EQUIPMENT

Group A

New York, New Haven and Hartford
Railroad Co., New York.

Group B

Chesapeake and Ohio Railway Co.,
Newport News, Va.

STEVEDORING DIV.—BULK CARGO

Toledo Lake Front Dock Co., Ore
Dock.

Toledo Lake Front Dock Co., Coal
Dock.

CARGO AND PASSENGER VESSELS DIV.

—OCEAN AND COASTWISE

Navy Department, New Orleans, La.

—Next page

REVOLUTIONARY NEW MAGNET CHAIN LASTS 5 TO 15 TIMES LONGER!

The new TM Frictionless Magnet Chain is now being manufactured by the S. G. Taylor Chain Company, Hammond, Indiana. Patented design keeps chain legs at 120° centers — prevents undue wear that otherwise results from friction, due to twisting. The entire assembly is manufactured from Taylor's Special Analysis Alloy Steel. This assures twice the strength — twice the safety factor of wrought

iron assemblies. Controlled heat-treatment means uniformity throughout plus high resistance to shock, grain growth and work hardness at all temperatures. And TM Alloy Steel Chain's extreme hardness enables the assembly to withstand abrasion. These factors add up to lower Magnet Chain costs for you as they have for others in many industries. Write today for full details. S.G. Taylor Chain Co., Hammond, Ind.



MINIMUM WEAR

Special locating plate keeps legs at 120° centers—cuts friction, twisting and gauging.



RUGGED CONSTRUCTION

Ring and end link can not be separated. Entire assembly is made from TM Alloy Steel.

- Lasts 5 to 15 times longer.
- Provides Increased Safety Factor.
- Assures Twice the Strength.
- Means Lower Costs for You.
- Each chain is tested before shipment.

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A GREAT NAME IN
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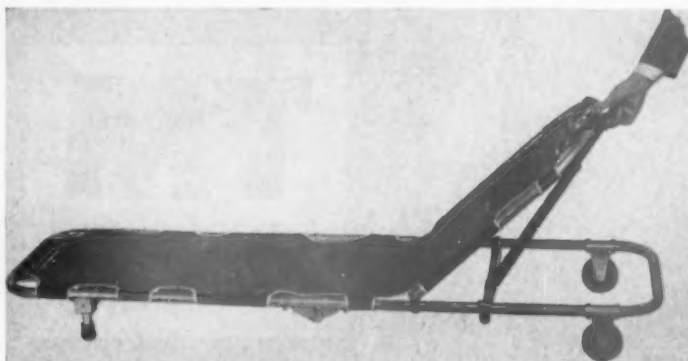
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This new head-rest adjuster with Finger-Tip Control is absolutely safe. There can be no accidental release. Steel and bronze construction adds nothing to the weight but insures everyday service.

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EXPLORATION

Humble Oil and Refining Co., Houston, Tex.

—Next page



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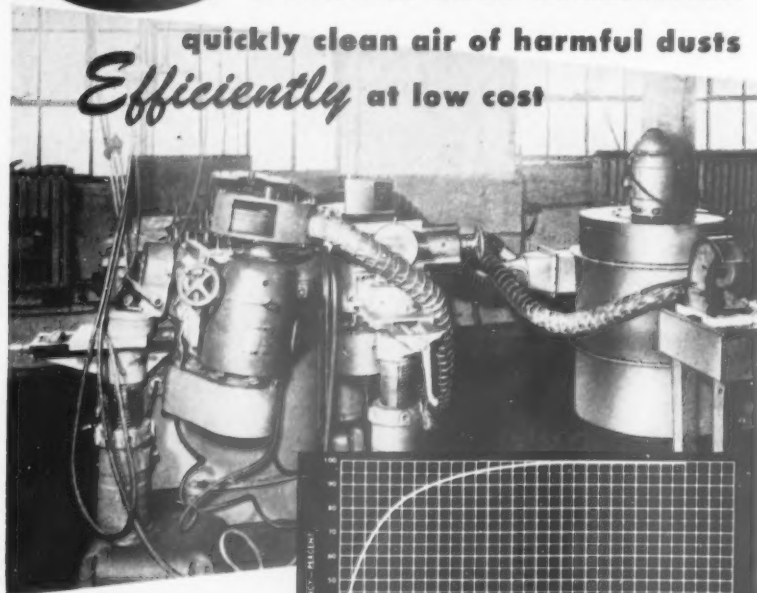




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The Aerotec unit above serves buffer and grinder in a combination hookup

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N. C.

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DIVISION I

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Weyerhaeuser Timber Co., Springfield
Lumber Division, Logging.

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Division Loggers, Dierks, Ark.

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Group A Edward Hines Lumber Co. Plant,
Hines, Ore.

—Next page

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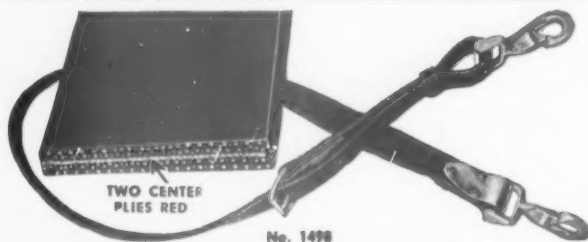
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Chess & Wymond, Inc., Louisville, Ky. Hunter-Wilson Distilling Co., Finishing Barrel Assembly, Oil City, Pa.

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Weyerhaeuser Timber Co., Los Angeles Yard.

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Parkay, Inc., Louisville, Ky.

Potlatch Forests, Inc., Lewiston, Ida.

American Forest Products Corp., Lakeview, Ore.

Hawaiian Employers

—From page 41

morning meeting, she appeared in a swim suit, announcing that there would be a demonstration in the afternoon in which she would participate.

At the opening of the afternoon session, the safety director of a large pineapple company in the Territory, using her as a subject, demonstrated the back pressure-arm lift method of resuscitation. Two or three of the conferees were then trained in this technique, still using the model as the subject. The girl who fulfilled this role in Honolulu later was chosen as Miss Hawaiian Islands. Later she took second prize in the "Miss Universe Contest" held in California. Obviously her appearance at the workshop helped to create public interest in the discussions. It is hardly necessary to add that it insured the return of all the conferees after lunch.

To promote the use of personal

safety equipment, such as goggles, safety shoes, respirators, etc., suppliers in the Territory put their products on display. The safety director of the Territory organized this part of the program. Some of the participants had not seen many of these safeguards before and considerable interest was shown in the exhibits.

At the termination of the afternoon panel discussion, the panel chairman summarized the remarks which had been made, crystallizing the thinking of the group into definite recommendations and conclusions.

Invitees were not limited to members of the Hawaii Employers Council nor to government agencies. Invitations were sent to people who would most likely benefit from "know-how" meetings of this type. For example, non-member executives, superintendents of schools, police and fire fighting officials participated in the discussions.

Between March 7 and June 12, 1952, four of these Workshops have been held on the Islands of Oahu, Maui, Hawaii and Kauai. The average number attending each conference was 85, and a total of 340 participated in the four conferences. Further publicity regarding industrial accident prevention work was obtained through newspaper releases and radio. On the Island of Hawaii, the talk of the plantation manager who keynoted the Workshop was broadcast in its entirety. Tentative plans for similar meetings have been formulated on an industry basis to be held in the fall of 1952.

It is too early to measure quantitatively decreases in accidents traceable to the workshops. There are instances where companies have since assigned safety supervisors to the job and where firms have refined and expanded their safety activities largely as a result of the meetings.

Many companies who had not been compiling data in accordance with the formulae approved by the American Standards Association and The National Safety Council are now doing so. Furthermore, an increasing awareness of safety problems has influenced com-



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skilled and faithful ally in meeting the stern challenge of costly industrial accidents is the Employers Mutuals Team of business-insurance specialists. These intelligent, conscientious teammates work with you and your organization in many ways to protect people and property—and to reduce insurance costs for you, our policyholder-owner, to an absolute minimum!



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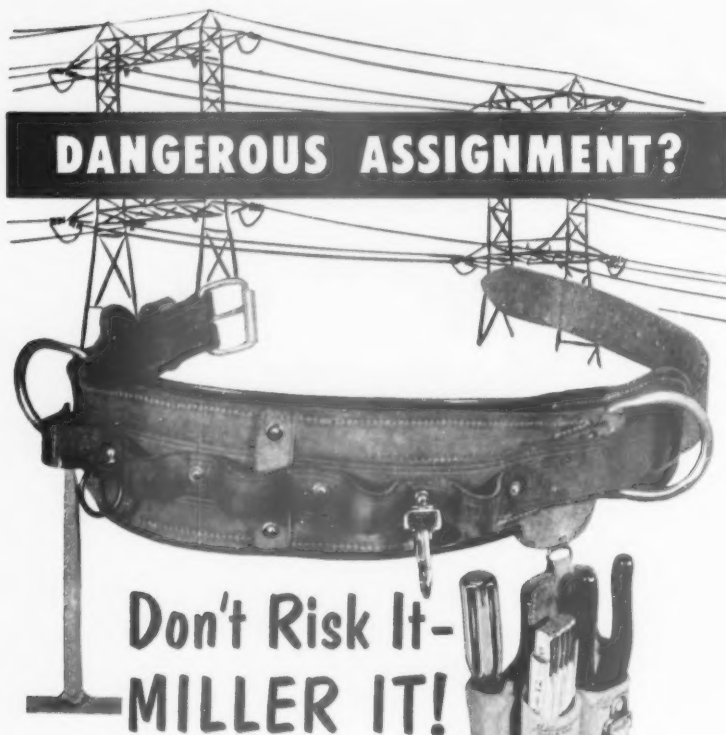
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panies to be more meticulous in reporting and recording lost time accidents. The Hawaii Employers Council, since June, 1952, has been compiling average frequency and severity figures on an industry basis. Initially only the sugar, pineapple and stevedoring companies are being asked to report this information. Later similar data will be prepared for the other major industries throughout the Islands.

The response of the executives of organizations has been most favorable. Many prominent men in the Territory have attended the meetings and participated actively in the proceedings which was a major consideration when organizing the Workshop. It is agreed that the series of accident prevention workshops should do much to reduce industrial accidents throughout the Hawaiian Islands.

Topping Industry's Record

—From page 29

The plant physician also has an important role. After treating minor injuries he goes out into the plant to see what caused the injury and what should be done to correct the situation. His periodic report of minor injuries is routed to every foreman in the plant and is also posted on the bulletin boards. This stimulates the competitive spirit and the determination to prevent accidents by further improving work habits and by keeping a closer watch for potential hazards.

Strengthening the favorable attitude toward safety in the minds of employees has been a sound program of engineering for safety. Every job at Sunbury has felt the influence of this policy. This covers protective personal equipment for workers as well as protective devices for machines, conveyors, test operations, and assembly procedures.

Results of these efforts have been written into the record at Sunbury: only 9 disabling injuries in the 11 years the plant has been in operation. These injuries cost the victims 4,200 hours of lost time. During that time more than 25,000,000 man-hours were worked. This experience produced the ex-

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ceptionally low rates of 0.35 for frequency and 0.02 for severity.

The significance of 15,040,000 safe man-hours can be appreciated by comparing such a record with the average for American industry. Such an exposure, based on the experience of a representative cross section of manufacturing operations would show 1 fatality, 8 permanent partial disabilities, and 126 temporary total disabilities.

Prevention of human suffering cannot be measured in dollars but the economic benefits of an accident prevention program can be appraised. In workmen's compensation payments alone, the company estimates savings of \$100,000 when Sunbury's experience is compared with the average for all Westinghouse plants. If compared with industry in general, the savings would amount to nearly \$250,000.

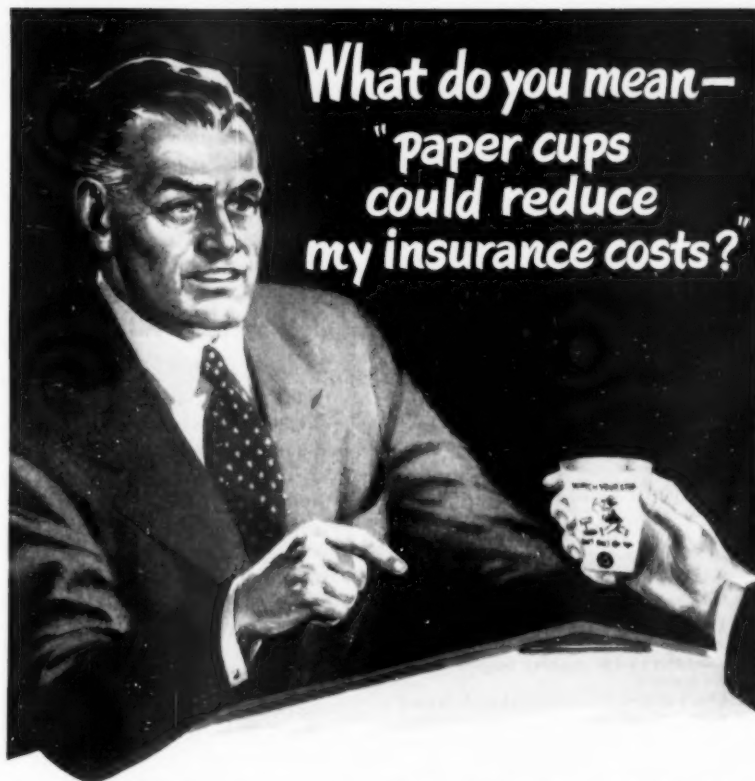
Safety Supervision

—From page 33

thought out plan just as realistically as a safety man views someone using a pen knife for a screw driver. Moreover, when a safety man isn't able to detect most of the obvious errors in his own reasoning, he just isn't using his tools right. Remember, the safety supervisor's main tool is his thinking and reasoning.

Now let's talk in two syllable words about what it means to us as safety men. What we've said is not just academic fol-de-rol. All our lives we are solving problems and reaching decisions—little ones and big ones—personal ones and business ones. What we've just gone over is just the plain inevitable workings of the human mind and the relationship between people. Those who can think clearly and logically have a head start on those who cannot.

We, as safety men, are committed to honest, impartial and objective thinking if we are to live up to the high ethical standards of our calling. Let's do our best to use "Honest John Good Reasoning" in a conscious manner and keep fallacies out of our thinking. If we do, we'll be certain to get better results in selling



AJAX Cups can . . . because they offer the most effective and economical way to get safety messages *read*. The National Safety Council confirms that safety messages that get *read* do help reduce accidents. And you know that fewer accidents mean lower insurance costs for you. So . . .

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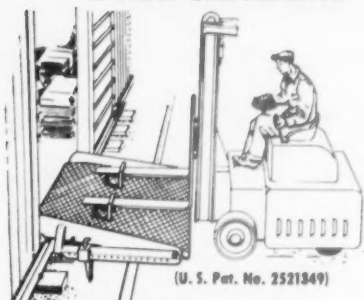
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- ★ Rugged all-steel welded construction
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4,000 lb. capacity

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Materials Handling Specialists
Steel Fabricators SINCE 1907

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management and employees as well.

Don't forget, however, that what we've said doesn't mean we should neglect the human touch and the appeal to emotions. It just means that the basic facts back of what we do must be free of fallacies and that our reasoning methods must fit the job at hand.

Industrial Health

—From page 56

more money, usually accompanied by a statement that without the bonus system they could not earn a decent living wage, and the comment that there was some social advantage in it in that it encouraged everyone to work hard to do a fair share of what was to be done. A considerably smaller group, less than 10 per cent, said that it was "fair to be paid for what you do." The relative infrequency of this comment may have been because very few of the workers were able to see any direct relation between what they did and what they were paid.

Reasons for disliking the bonus system were expressed by an even larger number of the workers than those who expressed reasons for liking it. Even a considerable number of those who were satisfied with their method of payment expressed reasons for disliking it. It is of interest that a considerably higher proportion were definitely dissatisfied with their wages. The most common reason for disliking the group bonus system was the difference between expectation and result. This occurred when the worker was prevented from setting his own rate of work or from receiving a reward commensurate with his work by factors largely or wholly outside of his control. This was the type of situation in some plants in which the workers were being continually shifted from job to job and in which some of the jobs carried relatively high bonuses and some none at all. It was also the situation where the amount of work which was possible to do was controlled by the amount of material available or because the rate of work was set by the fixed pace of an automatic machine.

In addition to this, there were various allowances for machine breakdowns and for quality of work which made it difficult or impossible for the workers to check their actual payments against their actual production. These various factors in many instances led to a feeling of injustice or frustration in the workers.

A closely connected set of complaints are the social conflicts arising within or between the payment groups as a result of differences in bonus rates. The groups who were not doing well were inclined to envy the groups who were getting out more production and higher bonuses and within the groups there was a tendency to dislike the older or less able individuals. In addition to this the individual workmen were inclined to feel personal conflicts first, because of their feeling that they were not going to be able to keep up the pace for very many years and second, because of the insistence on speed they were impelled to produce results which were not in accord with their personal standards of workmanship or which were contrary to their personal ethical code.

These difficulties appear to be largely emotional rather than intellectual and probably are very largely the result of introducing the bonus system of payment without sufficient knowledge of the existing motives and existing scale of values of the workers who are to be affected by them.

Thoriated Tungsten Electrodes

Use of Thoriated Tungsten Electrodes in Inert Gas-Shielded Arc Welding—Investigation of Potential Hazard. By A. J. Breslin and W. B. Harris. The American Industrial Hygiene Association Quarterly 13:191-195 (December 1952).

THORIATED TUNGSTEN electrodes were introduced several years ago for inert gas-shielded arc welding and have received a very wide acceptance because they are supposed to produce easier arc starting, greater arc stability and higher current carrying capacity with less contamination of the weld metal by electrode. Thus they produce both ease of operation and economy. There has been

THE SOLUTION TO AN OLD INDUSTRIAL PROBLEM

Contact Dermatitis



VEREX Protective Cream forms an invisible barrier which protects the skin against coolants, dirt, grease, emulsions, cutting oils, water-base paints, dyes, and similar hazards. It is used in many manufacturing operations including those that make

Airplane Engines
Atomic Materials
Automobile Parts
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CLEREX Protects the skin against ANHYDROUS Solvents. It is a jel which on drying forms a continuous strong elastic film, adheres to the skin and does not interfere with tactile sensation. The film washes off easily with water. It is insoluble in all anhydrous organic solvents including the hydrocarbons, the chlorinated hydrocarbons, the ketones, the alcohols, the nitriles, etc., etc. It is used to protect against chemicals, paint, varnish, lacquer, plastics, adhesives, DDT solutions, inks, such as printing, ditto, multigraphing inks, etc.

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Write Dept. N2

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EXTRA PROTECTION

against FIRE THEFT SABOTAGE

In the silence of the night

the watchman makes *his* rounds while the hands on his CHICAGO Watchclock make *their* rounds.

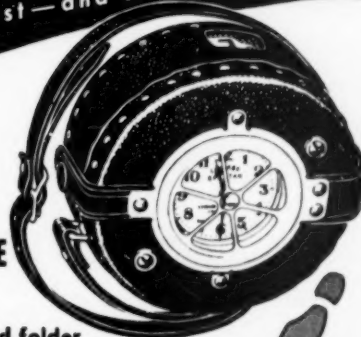
In the morning, there is a permanent dial-record of exactly where the watchman was during each hour...in the silence of the night.

The tamperproof CHICAGO Watchclock system is approved by both THE UNDERWRITERS' LABORATORIES and by THE FACTORY MUTUAL'S LABORATORIES. It gives extra protection against fire, theft and sabotage.

CHICAGO WATCHCLOCK
The first—and still the first

Quickly
pays for
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**REDUCES
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DIV. GREAT LAKES INDUSTRIES, INC.

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OFFICES IN PRINCIPAL CITIES



"I should have used a
 **Safety Tool!"**

Berylco Safety Tools are sold by leading industrial distributors. Write **THE BERYLLIUM CORPORATION**, Dept. 3-D, Reading 14, Pa., for a complete catalog and the name of the distributor nearest you.

a serious question about the possibility of excessive radioactivity being introduced into the air around the welding operation when these electrodes are used.

The normal commercial electrodes contain one per cent to two per cent thoria (thorium oxide) in metallic tungsten. They are produced by mixing the powdered thoria with powdered tungsten and then sintering and swaging.

Although the electrodes are considered to be non-consumable, they actually are slowly consumed. At the highest current densities and for large electrodes it may be as high as 50 to 60 milligrams per minute of welding time. If it is assumed that the thoria in the electrode is largely volatilized or dispersed as dust in the fume from the welding, the rate at which radioactive thorium is released to the air will be proportionate to the rate of electrode consumption and a potential hazard may be produced.

Since the Atomic Energy Commission contractors do a great deal of welding and have wanted to use this method for some time the New York Operations Office conducted an investigation at the direct request of one of the contractors concerned. The experimental investigation was carried on in the laboratory work shop of one of the manufacturers of welding equipment. The welding was done by an experienced welder and standard commercial equipment was used. The electrodes were 3/32nds and 5/32nds inch in diameter and contained both one per cent and two per cent thoria. Maximum recommended currents were generally used so as to produce the most severe possible conditions. No exhaust ventilation was provided and baffles were set up to reduce as much as conveniently possible the removal of radioactive material from the immediate area by the general room ventilation.

Samples of air at the welder's breathing zone were collected by holding the sampling tube at the lower edge of the welder's face shield on a piece of flexible tubing so that his movement could be followed readily. Samples of the general air were obtained by sus-



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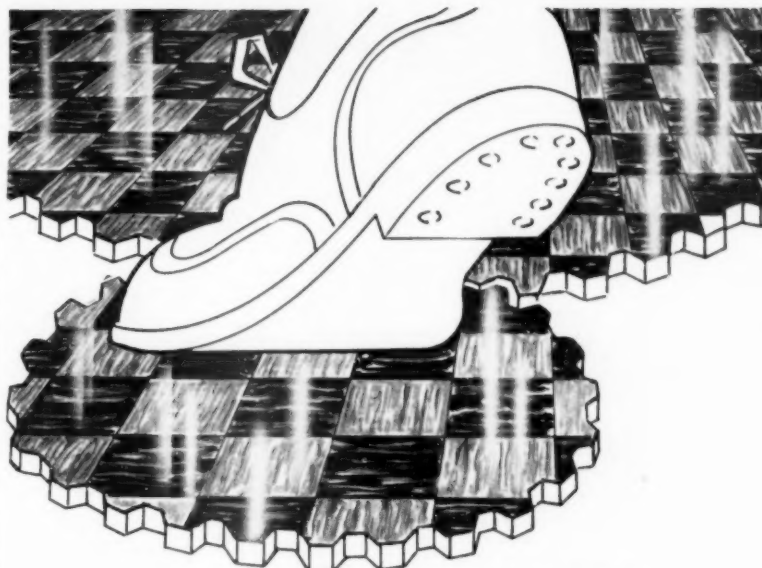
pending the sampling tubes above the arc or in fixed positions above and lateral to the arc. Each sample was counted immediately after sampling was completed to estimate the total activity and again 24 hours later to estimate the loss due to short-lived radioactive materials.

Samples in all cases are reported as no greater than some figure which represents the background count of the analytical equipment for the counting period used. The breathing zone samples which were taken for the longest time and permitted the best counts showed activities no greater than 9/10ths of an alpha discharge per minute per cubic meter of air.

General air samples showed higher activities generally than the breathing zone samples. One sample taken within six inches of the arc flame showed a count of 210 alpha discharges per minute per cubic meter.

There is very little information concerning the toxic effects of thorium or its compounds. The Atomic Energy Commission has been attempting to develop some information about the potential radiation hazards from thorium but the studies are not yet complete. As an interim value it has been considered reasonable to accept for thorium the same maximum allowable concentration as has been used for uranium, that is, 70 alpha disintegrations per minute per cubic meter of air. If this value is accepted, the only samples in which it was exceeded were those taken at a distance of six inches from the arc in the general air. In the worst of these it was exceeded by a factor of three. Samples taken ten inches and twenty inches from the arc in the general air showed very low values.

In an effort to determine the total amount of thoria released by the arc some electrodes were weighed before and after welding and an attempt was made to collect all of the fume released by the arc at the same time to get a check measurement both by release and by collection. The values agree reasonably well. The maximum amount released was 2.9 milligrams of thoria in a ten-minute period which corresponds to 290



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There is new safety in walking when floors are finished with Ves-Cote . . . because Ves-Cote contains a new and proven anti-slip agent, DuPont's "Ludox"* colloidal silica. These minute particles of "Ludox"* create excellent sole and heel traction—offer effective braking action for each step.

In addition to safety, Ves-Cote dries to a high lustre; is long-wearing; water-resistant; easy to apply and dries quickly.

If you need safe floors, yet demand attractive floors—Ves-Cote is your answer.

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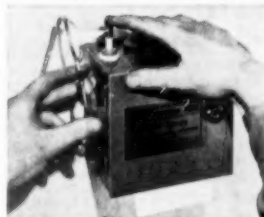


When you step on Ves-Cote the weight of the foot forces the hard "Ludox" colloidal silica spheres into the wax particles, providing superior gripping power. This way, Ves-Cote gives greater slip protection.

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For Cleaning and Fog-proofing Glasses and Goggles

- ✓ Self-contained
- ✓ No air pressure
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- ✓ Compact size
- ✓ One step—one application
- ✓ Hang up ready to use



- ✓ Holds dispenser of Sani-Spray and 400 tissues plus receptacle for used tissues
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EVERY STEP A SAFE STEP

WITH

BLAW-KNOX GRATING

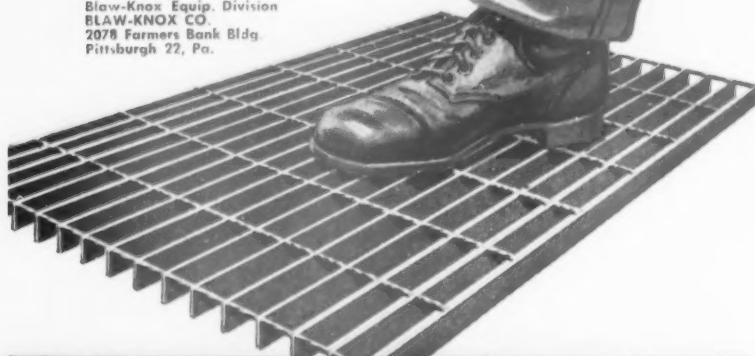
Everyone walks safely, confidently on Blaw-Knox Electroforged Steel Grating... the one-piece panels stay rigid and strong—without shimmy or shake—because there are no parts to work loose. Twisted cross bars provide sure footing under the most adverse conditions. For complete information, write for Bulletin 2365.

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BLAW-KNOX ELECTROFORGED STEEL GRATING

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Fit Any Press. 30 Day Free Trial

SWEEP GUARD

Guard sweeps across feed area on downward stroke of ram.

Flat arc of guard

arm travel provides greatest possible protection. Entire guard easily swung aside for making press adjustments. Send for Bulletin 135.

Adjustable BASKET GUARD

Enclosure type guard, used for blanking and other first operation work, prevents operator from reaching in or coming in contact with moving die. Easily installed on any make punch press. Also available with clear plastic window. Write for free catalogs.



arm travel provides greatest possible protection. Entire guard easily swung aside for making press adjustments. Send for Bulletin 135.

Other Guards designed and made by Searjeant

• Double Sweep Guard

• End Zone Barrier Guard

• Non-Repeat Mechanism

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alpha decompositions per minute of arc time. This was 3/32nds electrode operating at the maximum current density for this size of electrode.

From these results it is possible that the maximum permissible concentration might be exceeded by use of this equipment in a small enclosed and unventilated area. For welding in the open no special ventilation or protection seems to be indicated and there is no external radiation hazard from handling the rods in any quantity.

The President's Medal

Awards made by the National
Safety Council for successful ap-
plication of artificial respiration

MARVIN PAUL GORLE, first class lineman, Jersey Central Power & Light Co., Lakewood, N. J.—electric shock.

JOSEPHINE MUCCI LEWIS, registered nurse, Frankfort, Ky.—suspended respiration due to swallowed tongue.

STERLING E. KENNEDY, subway inspector, The Pacific Telephone & Telegraph Co., Montrose, Calif.—gas asphyxiation.

DONALD J. CAMPBELL, farmer, Burdette, Alta., Canada—drowning.

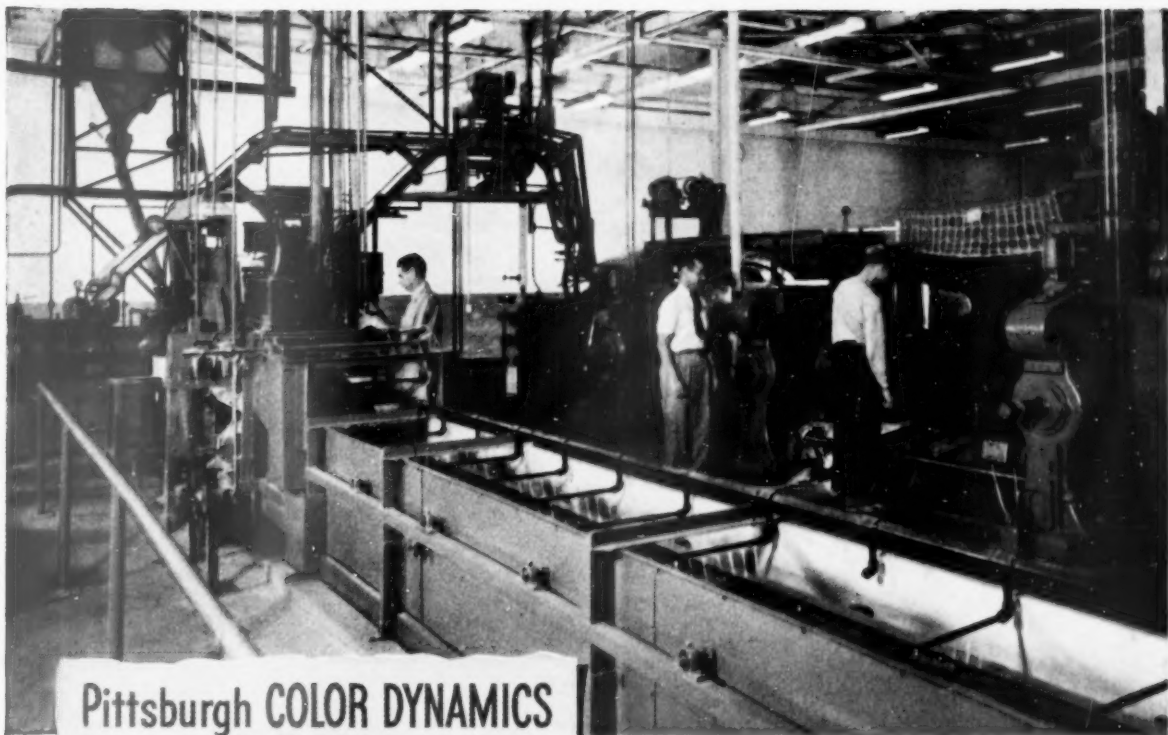
MAXWELL E. PANTOPHILET, acting sub-foreman, Lago Oil & Transport Co., San Nicholas, Aruba—drowning. Certificate of Assistance to GEORGE BECK, JR.

WALLACE POLIBER, telephone splicer, New York Telephone Co., Flushing Manor, Long Island, N.Y.—drowning.

MEREDITH JOHNSON, screw machine operator, Diamond Chain Co., Inc., Boggstown, Ind.—suspended respiration due to strangulation.

JAMES STEVENS, construction worker, James L. Barnes Construction Co., Los Angeles, Calif.—electric shock.

CAMERON FALLS EMPLOYEES, The Hydro-Electric Power Commission of Ontario, Alexander Landing, Ontario, Canada, drown-



Pittsburgh COLOR DYNAMICS
is Used by
GOODYEAR
to Reduce Eye Fatigue

Color is put to work in world's most modern tire plant in Jackson, Michigan, to make working conditions more cheerful and pleasant

FAR-SIGHTED executives in many industries are now making Pittsburgh COLOR DYNAMICS an important part of their operations as they are becoming increasingly aware of the fact that eye fatigue often slows down production even more than physical fatigue.

● **When material** the operator is working on is too similar in color to that of his machine, his eyes grow weary, just as the muscles of an arm tire when they are kept tensed for long periods. Needless eye effort is required to differentiate between machine and materials.

● **Eye fatigue** often leads to headaches and other ailments. Absenteeism and accidents are likely to increase. Production efficiency and morale may

be adversely affected. One objective of COLOR DYNAMICS is to reduce the causes of eye fatigue.

● **When you paint** the COLOR DYNAMICS way you use eye-rest colors for surfaces the operator sees when he glances up from his work. Their chief purpose is to give him a few moments of eye relaxation.

● **An excellent example** of eye-rest colors used according to the principles of COLOR DYNAMICS is the Jackson, Mich. plant of The Goodyear Tire and Rubber Company in which tires and tubes are manufactured for use as original equipment of new automobiles.

● **Here is the comment** of E. T. Ruffner, Plant Manager, on his ex-

perience with eye-rest colors: "Three years ago we painted our plant according to COLOR DYNAMICS. Our aim was to lessen eye fatigue among our workers. So completely satisfied are we with the results that we plan to repaint the same way in the near future."

● **COLOR DYNAMICS** has proved similarly successful in hundreds of other important industrial plants and commercial structures. It has earned this acceptance because it improves production efficiency.

● **Why not test** the practical value of this modern painting method in your plant? Use it on a machine or two, or in a completed department, and see the difference it makes in your output.

COLOR DYNAMICS Engineering Study of Your Plant—FREE!

● For a complete analysis of the service COLOR DYNAMICS can perform for you, send for our free, profusely illustrated booklet. It explains simply, and clearly how to put color to work on machines, walls, floors, ceilings and mobile equipment. Better still, let us show you exactly how to apply it in your plant. We'll be glad to submit a color engineering study of your entire factory, or any part of it, without cost or obligation. Call your nearest Pittsburgh Plate Glass Company branch and arrange to have our COLOR DYNAMICS representative see you at your convenience. Or mail this coupon.

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☐ Please have your representative call for a Color Dynamics Survey without obligation on our part.



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Copr. 1953 Pittsburgh Plate Glass Co., Pittsburgh, Pa.

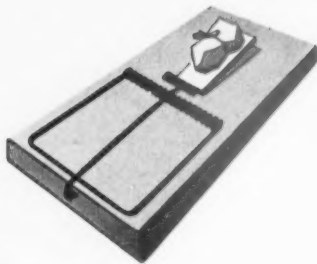


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For a Successful Poster Program



so little to
GAIN
so much to
LOSE

JUMBO POSTER for MAY 1953

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9' 11" by 11' 8".



NATIONAL SAFETY COUNCIL
9772-A 8 1/2 x 11 1/2

This new four color poster is illustrative of the 72 four color posters shown in the 1953 Poster Directory.



NATIONAL SAFETY COUNCIL
9873-C 25x38

Above new "C" poster, issued monthly, is indicative of the other two color posters shown in one color on the following page, and in the 1953 Poster Directory.

PLAN YOUR SELECTIONS . . .

THE 1953 Directory of Occupational Safety Posters has been mailed to all National Safety Council industrial members. Additional copies are available at 50 cents each—write to Membership Dept., N.S.C.

The Directory contains miniatures of 756 posters—top-notch selections on a great variety of subjects. All posters shown will be stocked during 1953.

Posters miniaturized on this and the following pages are NEW—shown for the first time. Excepting the Jumbo poster (left, upper), all will be in stock throughout 1953. Those posters shown in one color on the following two pages are actually printed in two or more colors.

For a more successful poster program: first, make your selections from the brand new posters shown on these pages and also from the hundreds of illustrations in the 1953 Directory.

Electrotypes of poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors
(Available only in sizes indicated)



9728-A 8½x11½



9824-A 8½x11½



9852-A 8½x11½



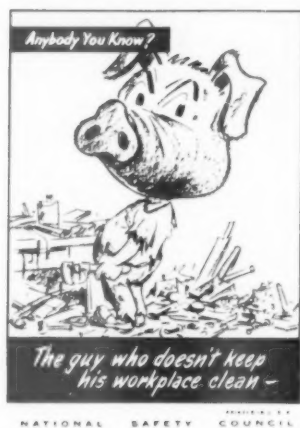
9814-A 8½x11½



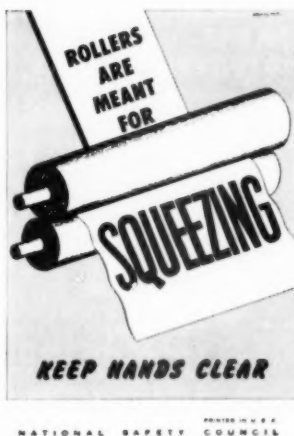
9854-B 17x23



9822-A 8½x11½



9809-A 8½x11½



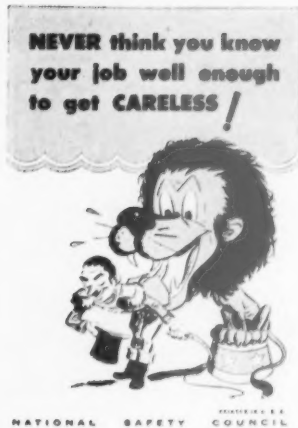
9835-A 8½x11½



9836-A 8½x11½

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

Posters below are printed in two or more colors
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9855-B

17x23



9840-A

8 1/2 x 11 1/2



9847-A

8 1/2 x 11 1/2



T-9797-B

17x23



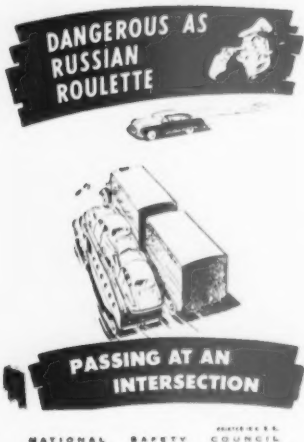
V-9848-A

8 1/2 x 11 1/2



V-9850-A

8 1/2 x 11 1/2



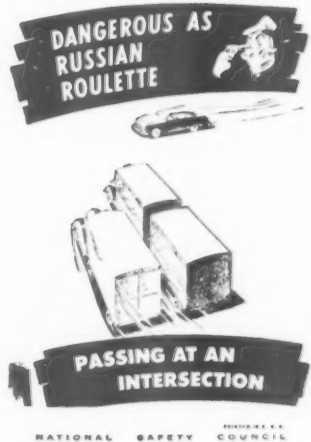
V-9872-B

17x23



V-9849-B

17x23



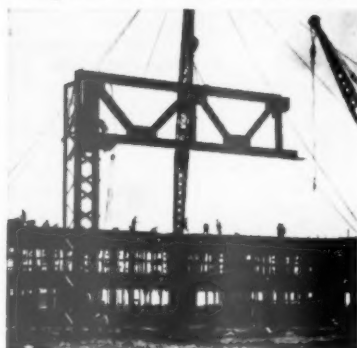
V-9851-B

17x23

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2224 Manchester Ave., Kansas City 3, Mo.

Please send my FREE copy of the Tuffy Sling Handbook and Rigger's Manual.

Firm Name _____

Address _____

City _____ Zone _____ State _____

Distinguished Service

— From page 66

Merek & Co., Inc., Rahway, N. J. (Entire company).

Merek & Co., Inc., Rahway Plant.

Merck & Co., Inc., Stonewall Plant.

Mersey Paper Co., Ltd., Liverpool, Nova Scotia, Canada (Entire company).

Monsanto Chemical Co., John F. Queeny Plant.

Moorman Mfg. Co., Quincy, Ill. (Entire company).

Morton Salt Co., Hutchinson, Kansas, Plant.

North American Aviation, Inc., Los Angeles Plant.

Pennsylvania Department of Highways, Harrisburg, Pa.

Ralston Purina Co., St. Johnsbury, Vermont, Branch.

Ralston Purina Co., St. Louis, Missouri, Branch.

Riegel Paper Corp., Milford, Mill.

Rohm & Haas Co., Lennig Plant.

Saco-Lowell Shops, Biddeford, Me. (Entire company).

Sandia Corp., Albuquerque, N. M. (Entire company).

A. O. Smith Corp., Eastern Motor Division, Tipp City, Ohio.

Sonoco Products Co., Hartsville, S. C. (Entire company).

Stockham Valves & Fittings, North Birmingham, Ala. (Entire company).

St. Regis Paper Co., Kalamazoo Mill.

Union Lumber Co., Ft. Bragg, Calif. (Entire company).

U. S. Navy Department OIR 550, Charleston Naval Shipyard.

U. S. Navy Department OIR 550, Mare Island Naval Shipyard.

U. S. Navy Department OIR 550, New York Naval Shipyard.

U. S. Navy Department OIR 550, Norfolk Naval Shipyard.

U. S. Navy Department OIR 550, San Francisco Naval Shipyard.

U. S. Naval Ordnance Plant, Indianapolis, Ind.

U. S. Vanadium Co., Pine Creek Unit.

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Virginia Electric and Power Co., Electrical Shops, Richmond, Va.

Western Electric Co., Inc., North Carolina Works, Winston-Salem Shops.

Westinghouse Electric Corp., Sunnyvale M & R, Sunnyvale, Calif.

Westinghouse Electric Corp., Television Div., Sunbury, Pa.

Wood Conversion Co., Cloquet, Minn. (Entire company).

Woodward Iron Co., Dolomite Mine No. 3, Pleasant Grove, Ala.

Ford Motor Co., Detroit, Mich. (Entire company).

Heywood-Wakefield, Gardner, Mass. (Entire company).

AWARDS OF MERIT

Abitibi Power & Paper Co., Ltd., Fort William Division.

Allison Malleable Iron Co., Albion, Mich. (Entire company).

American Airlines, Tulsa Maintenance



Lasts Longer Under Stresses From Knots & Kinks



Tuffy
Braided Construction
SLINGS

Knot it! Kink it—if you can! See how easily the patented braided construction of Tuffy Slings straightens out without damage. Only Tuffy gives you this extra flexibility and long-life strength—because *only Tuffy* has this 9 part machine-braided wire fabric construction that fights off knots and kinks, yet stands up longer when such stresses of distortion happen. Mail coupon below for your FREE 3-ft. sample of Tuffy Sling fabric and test it yourself!



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☐ Send FREE Tuffy Sling Handbook and Rigger's Manual.

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nance & Supply Depot, Tulsa Overhaul & Supply Depot.

American Car and Foundry Co., Berwick, Pa., Plant.

The American Sugar Refining Co., Boston, Mass.

The Anderson Co., Gary, Ind. (Entire company).

Arvin Industries, Inc., Television Division, Columbus, Ind.

The Babcock & Wilcox Co., Barberton, Ohio, Works.

The Bolta Co., Lawrence, Mass. (Entire company).

Brown Corp., La Tugue, P. Q., Canada (Entire company).

The Buckeye Cotton Oil Co., Hollywood Mill.

The Buckeye Cotton Oil Co., Corinth Mill.

The Buckeye Cotton Oil Co., Little Rock Mill.

The Buckeye Cotton Oil Co., Montgomery Mill.

The Buckeye Cotton Oil Co., Selma Mill.

The Buckeye Cotton Oil Co., Union Town Mill.

Butler Manufacturing Co., Kansas City, Mo. (Entire company).

Carbide and Carbon Chemical Company, C. C. Division.

Celanese Corp. of America, Rome, Ga.

Central Fibre Products Co., Inc., Tama, Iowa.

Chain Belt Co., Plant No. 3, Milwaukee, Wis.

Chain Belt Co., Plant No. 4, Milwaukee, Wis.

Deere & Co., Dubuque Tractor Works.

Deere & Co., East Moline Harvester Works.

Electro Metallurgical Co., Sheffield, Ala.

Fansteel Metallurgical Corp., North Chicago, Ill. (Entire company).

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Fraser Companies, Ltd., Edmondston, N. B.

Gaylord Container Corp., Dallas, Texas.

General Mills, Inc., Vallejo, Calif.

General Plywood Corp., New Albany, Ind., Division.

The R. F. Goodrich Co., Martha Mills, Thomaston, Ga.

Goodyear Tire and Rubber Co., Clearwater Mill No. 3, Cartersville, Ga.

Goodyear Tire and Rubber Co., Decatur, Ill., Mills.

Goodyear Tire and Rubber Co., Sao Paulo, Brazil.

Graniteville Co., Gregg Division.

International Harvester Co., Canton, Ill., Works.

International Shoe Co., Manchester Tannery.

Johnson & Johnson, Chicago, Ill.

Kerr-Addison Gold Mines, Ltd., Virginiatown, Ontario, Canada (Entire company).

NEW SBS WATERLESS WASHSTATION*

"brings the washroom
to the worker"*

for only \$52.50 per unit

(F.O.B. Saginaw, Mich. Towel dispensers not included.)

SBS-30 Waterless Skin Cleanser and new type dispenser make possible portable wash-up units that save hundreds of man-hours... thousands of dollars!

SBS Waterless Washstation is a complete hand-washing unit that requires no plumbing because it uses SBS-30, remarkable Waterless Skin Cleanser that removes nearly every soil except lacquer.

- locates close to work areas in factories, warehouses and shops or near outdoor operations.
- saves up to \$720 per unit annually by reducing time workers spend off the job washing up.
- helps keep workers hands clean for better health and greater efficiency in industry.
- reduces crowding in washrooms at lunch time and new shift time.
- eliminates use of harmful and irritating solvents.

SBS Waterless Washstation is constructed of heavy steel and finished in grey-green enamel. Turret top holds SBS-30 dispenser and two of your own paper towel containers. Handy locking storage space in turret top removable cloth bag for used towels in base.

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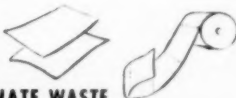
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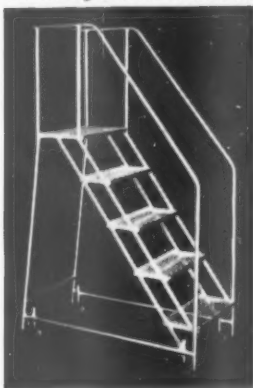
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Materials-Handling Conference May 18-22

A GROUP of 42 speakers, representing many outstanding industries, will head workshop seminars at the Materials Handling Conference which will be held concurrently with the fifth National Materials Handling Exposition at Convention Hall, Philadelphia, May 18 to 22.

The American Material Handling Society, an organization composed of users of handling equipment, is conducting the conference. The sessions, which will cover five basic aspects of materials handling, will permit each visitor to spend nine hours in a workshop discussion of a single aspect of his work, or three hours on each of three subjects.

Conference sessions will take place from 9 a.m. to noon on three of the five days of the show. The morning hours have been set aside so that there will be no conflict with show attendance.

The five topics, each of which will be the subject of a seminar

on each of the three days, include "Handling in Process," "Warehousing and Shipping," "Packaging for Improved Handling," "Bulk Handling" and "Requirements for Organization, Study and Analysis."

More than 25,000 visitors from 40 countries are expected to attend the show. Arrangements to house visitors have been made in Philadelphia, Atlantic City and New York.

Advance registration cards, information about the conference and hotel reservations may be obtained from Clapp & Poliak, Inc., 341 Madison Ave., New York 17.

Noise Abatement Week Set for April 12-18

The thirteenth annual observance of National Noise Abatement Week will be held April 12-18 particularly in cities conducting year 'round programs, Willis L.

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"SANKEY" IMPROVED FOOT GUARD equipped with Anti Skid TOE CLIP.

"SANKEY" FOOT GUARDS consist essentially of a metal shield to be worn over the shoe whenever the foot is in danger of being either crushed or cut. The metal shield is designed to furnish a maximum amount of protection to the entire front of the foot—not merely the toes alone, but also to the instep against hazards from falling, rolling or flying objects, or from accidental tool blows. Write for literature or a trial pair.

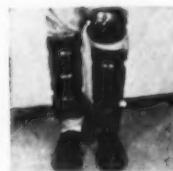
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Combines utmost protection and style. Exclusive patented features found in no other hat.

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Unit No. 1—Heavy cast aluminum canister, attractive metal sign, upright and heavy weighted base for use on floors, aisles, etc.

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Unit No. 3—(Not illustrated) Canister alone, with mounting bracket.

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the job—
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Stations
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Peoria, Illinois

Manning of Libertyville, Ill., president of the National Noise Abatement Council, has announced. Such cities scheduled to participate are Atlanta; Dearborn, Mich.; Jacksonville, Fla.; New York; Memphis; Glendale, Calif.; Salt Lake City; Hartford, and others.

The Council again will sponsor its annual achievement award competition. Cities and organizations making outstanding effort during the current year in educating the public and industry on the benefits of quieter living and working conditions will be cited.

Increased local populations, greater volume of traffic and housing congestion contributing to the nation's noise problem in cities and towns are stimulating interest in the control of needless, excessive noise through practical and reasonable means.

Wins Presidential Award For Service to Disabled

DR. HENRY H. KESSLER, Newark, internationally known orthopedic surgeon and founder and medical director of the Kessler Institute for Rehabilitation, West Orange, N. J., has been given a Presidential Award for outstanding service to the physically handicapped.

The award, an illuminated scroll signed by President Truman, was presented at a dinner meeting of the 13th annual Congress on Industrial Health, in Chicago. The dinner was arranged jointly by the Council on Industrial Health of the American Medical Association, sponsor of the congress, and the Chicago Medical Society.

Vice Adm. Ross T. McIntire (M.C.) U.S.N. (Ret.), Washington, chairman of the President's Committee on Employment of the Physically Handicapped, made the presentation for the committee. This is the first time the award has been made to a physician.

Dr. Kessler, a veteran of two wars, is a member of the Council on Industrial Health and a past president of the International Society for the Welfare of Cripples and of the National Council of Rehabilitation. He was medical di-

rector of the pioneer New Jersey State Rehabilitation Commission and has been consultant to the United States, United Nations and various foreign governments.

He is a recipient of the Gold Medal Award of the American Academy of Orthopedic Surgeons and of the American Design Award for outstanding service in the field of rehabilitation. He recently was named a consultant to the World Veterans Federation.

Receives Award for Management Leadership

JOHN T. RYAN, JR., executive vice-president of Mine Safety Appliances Company, has been presented the Duquesne Management Award for "leadership in management," by the Duquesne University chapter of the Society for the Advancement of Management.

The presentation was made during the third annual management conference sponsored by the chapter in Pittsburgh Wednesday, March 11.

Mr. Ryan received his B.S. degree at Pennsylvania State College and an M.B.A. degree at Harvard. He started with MSA in 1936 as a sales engineer and was named executive vice-president in 1948.

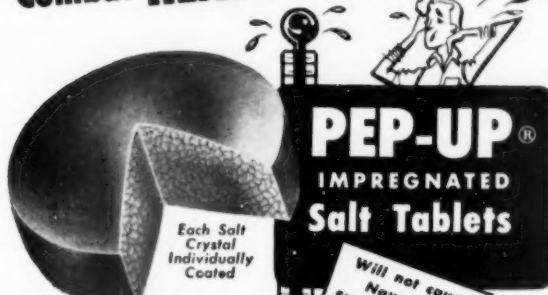
He is president of the Callery Chemical Company, an MSA subsidiary, and a director of subsidiaries in Canada, Scotland and South Africa. He also is a director of several other firms, including Thomas A. Edison, Inc., Townsend Company and Ruud Manufacturing Company.

You Must Decide!

—From page 39

never helped them to grow, I am sure. That's right, I don't have as many men as the larger plant, but I've got as many as I need to do this job. I can't have a man for every responsibility—all of us have to handle more than one responsibility. But, we have every responsibility that a large plant has. "We can't get rid of an important responsibility with the excuse 'We're too busy,' no more than we can leave nuts off the

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bolts when doing assembly because we're too busy or because we are a smaller plant.

"If you ask me, I think some of the smaller plants look upon safety as being something extra. Well, it isn't! It's a part of everything we do from planning, to production, to sales—it can't be any other way. Accidents cost us money! It takes years to develop skill. Even if I didn't feel a personal responsibility for the safety of my men, it would be just plain good business to keep that skill on the job."

LPE: "Most smaller plants argue that it's impossible to establish planned job procedures, to teach employees according to planned procedure and to follow up on the training when it is completed. We usually don't even get a chance to explain how it can be done."

Mr. Brown: "First, let's look at my responsibility. As manager of this plant I am responsible for a good product or I won't stay in business very long. Therefore, I'm interested in having the product made according to my procedures and not according to procedures my employees may think are good enough. So I plan the production methods with my two foremen, and when we're doing this we pay careful attention to safe practices. That's what I mean by making safety part of the job. Sure we can't train everyone with only two foremen. In fact it's foolish to even try. So we appoint group leaders to help us do the training job. We train the group leaders and the group leaders help train the other workers and then the foremen follow up to see that the training is accomplished the way that we want it.

"By using group leaders to help with our supervisory work, we are training good supervisory personnel to meet our growth needs. We also have a man who can step in when a foreman is busy or sick. Why should this system be any different in either a small or large plant? The way I look at it, a large plant is a lot of departments. Each department can be considered a small plant. Yet, the large plant doesn't consider a department too small to have system.

"When things go wrong around here, I want to know about it—I always find time to get all the facts. I've got to! This is my business and anything that goes wrong is important to my business."

LPE: "Mr. Brown, what kind of accident prevention help do you think would be most beneficial to smaller business men?"

MR. BROWN: "Well, I believe that all the accident prevention principles that apply to big business apply to small business in one way or another. However, there is a problem in understanding just how they apply. Maybe small business men, who are interested in developing a better business system, should get together just as big business does and exchange ideas concerning their safety problems—sort of a help-each-other idea. I get lots of ideas from the smaller business men with whom I have contact. We can do this through better participation in our industry association groups and by community participation in industrial safety programs. There is no reason why we can't get some small business group started in connection with the old established safety conferences for the larger industries.

"We need direct help with safety literature, posters and such stuff, of course, because costs would be prohibitive for the individual small plant or business to produce its own. A lot of such materials are available as an aid in preventing accidents and fires.

"Regardless of what some small business men may think about my handling of safety in my plant, I'm going to continue making it an important part of my business plan because it has paid off."

So What?

You must decide for yourself! An honest evaluation of your attitude can only be made by you. What's more, what you do about what you find is entirely up to you.

This fact remains, whether the plant or business is large or small by any standard, a good accident record is never a matter of "just luck." It is possible to "get by on luck" for a while, but "accident control" results only from careful

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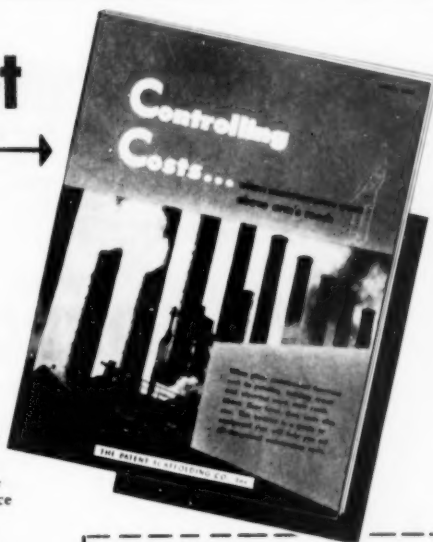
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management planning and leadership. "Size of plant" is an excuse, it is never the answer to the problem.

When does management's attitude toward its safety problem change? You must decide for yourself! There is plenty of help available to management of the smaller plant or business. The National Safety Council's Small Business Safety program is one of the best. But, first you must decide to help yourself by determining what you need and then by making proper use of the help you can get.

There is no easy formula for achieving a safety record. But the fact remains, the small business manager can have anything he wants. He proved that when he had courage enough to start a business. He controls every phase of business performance—which includes safety performance.

The Freight House

—From page 35

ing on of trolleys or staffs and the unhooking from the chain overhead.

Possibilities of the floor type conveyor were investigated. There were several installations in warehouses, especially in large wholesale houses. For the most part, however, only light loads were transported by this medium. After careful analysis of both systems, it was decided to pioneer the handling of heavy-duty, four-wheel trucks loaded heavily with the kind of L. C. L. freight commonly carried on the Santa Fe.

To do this, it was necessary to have a pin engage a dog in the chain so constructed that when the pin was lifted, it would be below the surface of the truck deck to permit flat objects, large boxes or crates overhanging the truck to be easily handled. Much study and many experiments resulted in the pin device with which the four-wheel trucks are equipped. Raising and lowering of the pin is controlled by means of a foot pedal on either side of the truck. This device has become known commercially as the "Santa Fe pin."

The installation was confronted with the old problem of bridges across platforms and tracks. The present crossing at ground level carries a channel through which the tow chain passes in endless operation. The crossing, worked out in collaboration with the manufacturers of the Towveyor, was manufactured in the Santa Fe shops at Newton, Kans., and was redesigned several times before the final set-up was adopted. It had to be of sufficient strength to carry not only loaded cars passing over it, but also diesel switch engines.

Complete modernization of freight handling consisted not only of the conveyor system, but also centralized checking of freight at any point in the plant, full and complete talk-back public address system coverage, vacuum tube systems to carry bills of lading, waybills and other papers to and from offices on dock at outbound house and inbound house as well, sufficient office space for all needs, and dressing rooms, showers and lockers.

Dock foremen, whose duties require them to be at different locations in the freight house, use gasoline scooters or electric widgets to cover their territory. They can immediately respond to any call over the public address system when they are needed to straighten out some detail of regular freight handling or to oversee the loading or unloading of a shipment which is particularly difficult to handle.

With conveyor operation, there is very little freight stacked on the floor. Everything that can be handled over the conveyor is loaded on the four-wheel rubber-tired platform trucks and placed on the line. Each truck is given a block number, which is chalked on the side of the platform. The truck is removed from the line as it passes the car, or point, designated for that particular block.

If not removed, the load will continue on the line, making a complete circuit. It can be removed the second time it passes. Frequent missing of loads for a given block can be spotted quickly by foremen and the condition corrected.

As trucks are made empty, they



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* "Industry's Big Itch", "Occupational Hazards", December 1952.

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are replaced in the moving line from which they are removed as needed when they reach points of loading or unloading. Thus, empties do not accumulate at one point when they are needed for loading at another. The conveyor method also conserves manpower since trucks and dock men do not have to accompany each load. They can continue to load or unload while both loads and empties are en route.

The old two-wheel trucks, of which there were more than a thousand in the old freight house, became obsolete with the modernization at Corwith. Of these, only about ten have been retained for miscellaneous purposes. Fork lift trucks are still needed for handling freight, which cannot be carried on the four wheel trucks because of unusual shape, size or weight.

Also important in handling freight are the steel dockboards used between docks and cars and between cars. A dockboard was designed especially for this purpose by the railroad's engineering department. It weighs less than 400 pounds and will hold at least 10,000 pounds in the extreme center on the front wheels of a fork-lift truck, which puts all the weight on about four inches of the wheel. This has been made a Santa Fe standard.

A simple fork plate lifter has been designed for slipping onto the front plate of the fork lift. This device makes it possible to pick up one of these boards with a lift truck and place it for loading or unloading cars.

Beyond Wages

—From page 26

salary to her mother, keeping with her a small amount as pocket money. She asked for a certificate that would enable her to leave her job. She made all sorts of vague complaints.

Firmly yet sympathetically, and without examining her, I told her that she knew as well as I that there was nothing wrong with her, but if she would tell me what was behind her move I might perhaps be able to help her. It came out

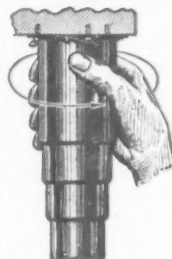
that she was after another job and wanted an unfit certificate in order to become eligible for the company's donation to her provident fund despite her service with them being under two years.

The surprising thing, however, was that she was accepting a lower salary elsewhere, though only a few weeks ago she had been telling me that her mother was finding it difficult to make both ends meet. I asked her if there was any sense in adding to her mother's difficulties. She retorted that she would not give the latter a pie less but would cut her own allowance.

I reminded her that people do not forsake material welfare this way without a strong motive behind and she had not informed me of that. With pouted lips she then blurted out, "This is a horrid place. They think we are just dirt. There is no washing place, no dressing room, and in the evening we have to go home with dirty hands and dishevelled hair, and all the men staring at us."

Durga tells me that at her fac-

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tory there is a dressing room with a matron-in-charge who decorates it with flowers and pictures. I sympathized with her and asked her if it would not be better if she resigned after giving the management her real reasons for the resignation, so that when they find useful workers like her leaving them they may be tempted to have a dressing-room in their factory also. She agreed.

Some time after, I had occasion to recommend to a factory employing women to start a dressing-room for them and make it attractive. I was asked if these women ever use a dressing-room or will ever be able to afford even any semblance of it. But it is in their dreams, I pleaded, and it is worthwhile to let them realize their dream if they are to give of their best to their work.

Beauty and art have a place in industry, I argued. Outward harmony leads to inner peace. A living quarter without the least semblance of beauty and art is a stable and not a home. And factories are a nation's homes where its children live and work for eight hours every day.

But my arguments were brushed aside as so much specious pleading. On that day, I went home to lunch with frustration in my heart, and at the dining table I started quarreling over my food.

This article is being published in three installments. Parts II and III will appear in an early issue.

I, Machiavelli

—From page 31

super called a staff meeting this morning, with the yard as the principal point on the agenda.

The yard, the super told us, was a disgrace. He wanted it cleaned up, pronto. Maintenance could hire some extra help. Departments using the yard for storage were to tighten up procedures.

As the super told us, "This thing has become a big stink. Larson was jumping me yesterday, saying he didn't want sales to have to route VIP visitors around any eyesores like that. The millwrights claim their spare parts are all mixed up with junk, etc. etc. etc."

As we broke up and were leav-

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SEE PAGE 13

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ing, the super noticed me. "Hey, I'm surprised you weren't one of those who climbed my frame about the yard. Don't you realize that that place is a regular accident trap?"

I donned, I hope successfully, the blank look of one to whom a brand new idea had just been presented.

Pole-Top Resuscitation

—From page 25

The Double-Rock Modification was preferred by the linemen as they found it allowed them to maintain a regular smooth easy rhythm. Fatigue was about the same as with the Single-Rock Modification.

Since obtaining information on the Bear-Hug Arm-Lift Modification, it has been tried out. It was found to be the most tiring and difficult of the modifications suggested. The question has also been raised whether chest compression may not introduce unnecessary possibility of rib injury.

Comments

In evaluating the results of the study, it should be stressed that the experiments were conducted under ideal conditions. Such conditions, while necessary for the collection of valid data, produced an optimum of ventilation from a given procedure. Under actual field situations there will be a number of uncontrollable factors, acting individually or collectively, which will tend to decrease the amount of ventilation obtained. Some of these factors are partial obstruction of the victim's airway, procedural faults of the rescuer, physical limitations of the rescuer, condition of the victim, and pole conditions.

Since the experiments indicated that under the most favorable of conditions the present pole-top method produces only about 30 per cent more air than is required by a normal resting man, the safety factor with this method is not large. The greater amounts of air produced by the push-pull modifications however increase considerably the margin of safety. This makes them less susceptible to uncontrollable factors, thereby

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enhancing the chances for successful resuscitation of a larger number of victims.

According to Gordon et al., "The addition of an active inspiratory phase should result in increased alveolar ventilation with the push-pull methods. In the presence of an efficiently functioning circulatory system, this augmented alveolar ventilation would improve the ventilation-perfusion ratio of the lungs and result in an elevated arterial oxygen saturation. This has been demonstrated with the prone push-pull methods.

"Furthermore, a failing circulatory system should be improved by the push-pull pole-top methods. During active expiration, compression of the abdomen should have a massaging or 'milking' action upon the viscera, tending to direct the blood flow toward the heart and to prevent vascular pooling in the splanchnic area. During active inspiration, the arm-lift increases intrathoracic negativity by enlarging the anteroposterior diameter of the thorax. This will aid car-

diac refill by drawing blood toward the heart."¹⁷

Despite these observations, it is medical opinion that, although push-pull pole-top methods should be started at once, if the victim requires prolonged respiration, he should be lowered to the ground as soon as practical and one of the prone push-pull methods used. The vertical position is considered by medical authorities to favor collapse of the vascular system under conditions requiring artificial respiration.

The performance of push-pull pole-top methods is more tiring than regular pole-top. While 12 complete cycles per minute are desirable, 10 cycles may be easier to achieve. If the rescuer tires while performing the methods, he can change to the less tiring pole-top method until he feels able to resume the more efficient method.

It must be mentioned that modified pole-top methods should not be considered a complete replacement for the standard procedure. Because of line design, pole conditions, and the unpredictability of the position and condition of the victim, it will not always be possible or desirable to perform the arm-lift phase of the maneuver. Situations will also arise where any resuscitation on the pole would be hazardous and the victim should be lowered to the ground and prone methods applied. The procedure to be followed will be determined to a large extent by the training, confidence, resourcefulness, and ingenuity of the rescuer.

Conclusions

1. Push-pull pole-top techniques should be used instead of standard pole-top wherever pole conditions and the nature of the victim's injuries permit.

2. These methods provide 1½ times more lung ventilation than the standard method; amounts being within the range of that obtained by accepted prone push-pull methods. These methods are therefore less susceptible to uncontrollable factors which reduce the amount of air obtained by the victim. This increases the chances for successful resuscitation of a larger number of victims.

3. Judging from studies made



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on prone methods, push-pull pole-top techniques should aid a failing circulatory system.

4. Any pole-top method should be considered an expedient only. Unrevived victims should be lowered to the ground as soon as possible and artificial respiration continued, using one of the accepted prone push-pull methods.

5. The double-rock technique appears to be the most applicable of the push-pull pole-top modifications, from the standpoint of results obtained, ease of performance and operator fatigue. However, all but the forward-rock modification should give similar ventilatory results.

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Green Cross News

—From page 50

featured on an attractive float, sponsored by the Safety Council, in the city's annual New Year's parade. On February 28 the Jacksonville Council honored 700 commercial vehicle drivers for completing 1952 without accidents. Because of lack of facilities 200 received their awards at a luncheon and 500 at the dinner.

Concord Now Chest Agency

The Concord Safety Council (N.H.) has just become a Community Chest agency, according to an announcement from the new chairman of the safety council, Raymond C. Ellison, Concord bank official. The first meeting of the new board of control of the Council was held January 28. Edwin S. Smith, Eastern Region manager, NSC, spoke at the initial session. Six committee chairmen were appointed to serve in traffic,

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SIMPLE TO OPERATE

Men Can Climb—No Instruction

SAFETY SPECIFICATIONS

High Safety Factor—
Will Not Rust or Corrode

Write for Folder

Safety Tower Ladder Co.

P.O. BOX 1052

BURBANK, CAL.

STOP THAT FALL



SAFETY LIFELINE LOCK for SCAFFOLDS and SWINGS

Locks automatically and instantly.

Slips on ordinary rope lifeline at ground. Moveable up or down with man. In instant locking position at all times whether stationary or being moved up or down.

Snaps into safety belt, no adjusting.

Safety Tower Ladder Co.

1024 Burbank Blvd.
Burbank, Calif.

home and farm, industrial recreation, finance and a special advisory committee was also appointed to iron out details with the Chest organization.

G. J. Bleibtrey Heads Lansing

At the annual meeting of the Lansing Safety Council, newly elected president George J. Bleibtrey announced the formation of a special finance drive under the direction of Dan O'Shaughnessey, treasurer of the Council and prominent automobile dealer in the Michigan city. The objective is to sign up 300 business firms of the area that have not been members of the Council. A kick-off breakfast was held February 16 and each member of the Board who attended, was assigned certain firms for personal solicitation. President Bleibtrey, who was installed at the meeting and dinner on January 28, is general traffic manager for Motor Wheel, Inc.

New President for Hamilton

Cecil M. Dunn, president of RCA Estate Appliance Corporation, recently was named president of the Hamilton (O.) Safety Council. Paul Weishaar, Jr., industrial relations director for the Hamilton branch of Bendix Aviation Corp., was chosen vice president for the ensuing year. Mr. Dunn succeeds Arthur Topmiller of Champion Paper & Fibre Company whose administration during recent years was characterized by marked growth in activities, financial structure and accident reduction. Mr. Dunn, the new Council head, has been prominent in safety and other civic activities for many years.

Philippine Council Anniversary

The fifth anniversary of the Philippine Safety Council was observed in early November in Manila. An informal open house was held at the Council's offices where members, officers and board members, committee workers, civic group leaders and friends attended the function. President J. A. Thomas commended the group for the fine spirit of civic cooperation that has been developed during recent years with such organizations as Red Cross, Boy

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nor exposure will remove
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Tensile strength is preserved
and the canvas stays pliable.

Approved by the Underwriters'
Laboratories of the United States and
Canada, the Bureau of Standards and
Appeals of the City of New York
and the California Fire Marshal.

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2,299,612, others pending.

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**Dramatizes the history of canvas; its
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laboratory controls and production tech-
niques of treated fabrics.**

Write us for an available date.

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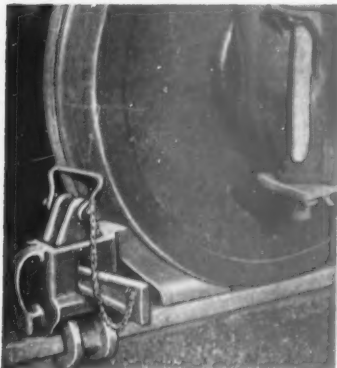
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NORRISTOWN, PENNA.**

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YES, THE M & M RAIL CLAMP solves these two problems because the M & M Rail Clamp will not budge. It is designed to keep car wheels in immovable position.

The entire M & M Rail Clamp is constructed to withstand the weight of heaviest cars and roughest treatment. Body is electric furnace steel casting; lugs and wedges are highest grade drop forgings. Strong steel chain attaches wedge to clamp.

Heaviest industries throughout the country are using M & M Rail Clamps on loading platforms, cars on grade, car ferries, sidings, traveling cranes, steam shovels and excavators.

Order an M & M Rail Clamp and see how well it performs for you. Made in two sizes to fit any rail—Model A-40 to 100 lb. rail; Model F-110 to 175 lb. rail.

Safety First Supply Co.

**M & M
RAIL CLAMP**

It will not slip!

425 Magee Street • Pittsburgh 19, Pa.

and Girl Scouts, civic luncheon clubs, Health Association, Philippine Motor Association, public officials, the police and other groups. The Philippine Safety Council is a member of the National Safety Council.

Ottumwa Council Employs Manager

Harry Davis has been employed as manager-secretary of the Wapello County Safety Council with offices in Ottumwa, Iowa. The Council was organized about a year ago at the suggestion of a prominent medical man of Ottumwa, Dr. L. H. Prewitt. Leading citizens have helped actively in the work and the financial support of the organization, which eventually will become a Chapter of NSC. The new manager comes from the Ottumwa plant of John Morell and Co. where he was employed for years.

Safety Library

—From page 65

and Safety in the Minerals Industry. By S. H. Ash, Mining Engineering. February 1953, p. 174.

Coal and Safety in 1952. Coal Age, February 1953, p. 81.

How to Avoid Stream Pollution from Acid Mine Drainage. Coal Age, February 1953, p. 96.

Noise

A Field Study of Occupational Deafness. By Colin M. Johnston. British Journal of Industrial Medicine, January 1953, p. 41.

Noise Is News. Prevention or Control of Harmful Noises Is Goal. Modern Industry, February 15, 1953, p. 48.

Physical Examinations

Benefits of a Pre-employment Physical Examination Program. By Rose P. McKay. Nursing World, February 1953, p. 24.

Printing and Publishing Industry

Human Factors in the Pressroom. The Offset Pressman's Viewpoint on Safety. By Arthur Shadden. Modern Lithography, February 1953, p. 35.

Safety Controls for Single and Three-knife Cutters. By Richard Squires. Bookbinding and Production, February 1953, p. 44.

NOLAN ONE-MAN CAR DOOR OPENER



Opens Doors in 20 seconds or less



The Nolan Car Door Opener gives one man a tremendous amount of pulling energy, to get the most stubborn, hard-rattling door wide open in a hurry!

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New safety and efficiency features now make the Nolan 1-Man Car Door Opener a more necessary labor-saving, money-saving help than ever before.

**MANY THOUSANDS IN
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Free Literature.

Order one or more
NOLAN Model-H Car
Door Openers now.
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**USE
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FULLER'S EARTH**

Adds greatly to the safety of your shop • Provides safe non-slip footing • Absorbs oil and grease • Lessens fire hazard because, unlike saw dust or wood shavings, it is non-inflammable • Every shop needs this low cost safety aid.

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TAMMS INDUSTRIES, INC.

Dept. KM10 • 274 N. La Salle St. Chicago 1, Ill.

Radiation

An Investigation into the Removal of Radioactive Contamination from the Hands. By James Gregory. British Journal of Industrial Medicine. January 1953, p. 32.

Radiation Exposure in the United States. By Dale W. Moeller and others. Public Health Reports. January 1953, p. 57.

Railroads

T & P Delivers Safety to the End of the Line. Modern Railroads. January 1953, p. 101.

Ventilation and Exhaust Systems

How to Build a Dust Control Program—And How to Keep It Working. By Karl T. Miller. Coal Age. February 1953, p. 104.

Industrial Ventilation. The Engineering Journal. January 1953, p. 22.

Waste Disposal

Abatement of Stream Pollution Caused by Industrial Wastes. By Rolf Eliassen. Public Health Reports. January 1953, p. 43.

Best Way to Dispose of Waste. By Kay Heaselberg. Factory Management and Maintenance. February 1953, p. 125.

Woodworking Industry

Dust Is No Longer a Problem in This Woodworking Plant. By E. F. Anderson. The Plant. January 1953, p. 40.

Calendar Contest Winners For February

First prize in the National Safety Council's Safety Calendar Contest goes this month to Marie Weidinger, Crown Cork & Seal Co., Baltimore, Md. The theme in this contest was practice makes perfect. Miss Weidinger's line was adjudged the best of all those submitted. It was:

Without practice what good would rules be?

Second prize went to Ernest Case, letter carrier, U. S. Post Office, of Akron, Ohio, for this line:

If your habits are safe, you will be.

Third prize was awarded to Mrs. W. N. Sanders, Tennessee Coal & Iron Div., U. S. Steel Co., of Fairfield, Ala., for the following line:

Practice pays through the "knows," all agree.

The February limerick was:

Wailed Tom: "Practice now, Mom?
Aw, gee!"

Said his Mom: "Practice pays, believe me."

"Right," said Dad, "and it's true
In the safety field, too."

Thirty \$5 awards were issued to:
Samuel H. Mays, training coordinator, Kimberly-Clark Corp., Memphis, Tenn.

G. B. Logan, cashier, The Texas Company, Port Arthur, Tex.

Inor Bergstrom, steam engineer, DuPont Powder Co., DuPont, Wash.

Anne Prieve, stencil typist, A. B. Dick Company, Chicago.

Mrs. Ned Fish, secretary, University of Missouri, Columbia, Mo.

J. Wesley Van Ornum, cost accountant, United States Gypsum Co., Fort Dodge, Ia.

Miss Jean Rankin, clerk-typist, Kansas State Highway Patrol, Topeka, Kans.

Miss F. O'Connell, plant nurse, Anglo Canadian Pulp & Paper Limited, P. Q., Canada.

Alfred Galletti, personnel director, Wyandotte Chemical Corp., Wyandotte, Mich.

Walter W. Nowicki, Crown Cork & Seal Company, Baltimore, Md.

Sam Posey, telegraph operator, Gulf Oil Corporation, Houston, Tex.

Donald McLeod, assistant car distributor, Southern Pacific Co., Los Angeles, Calif.

Mrs. Ben G. Goddard, B. F. Goodrich Co., Akron, Ohio.

W. J. Jarvis, carpenter, Consolidated Mining & Smelting Co., Trail, B. C., Canada.

John G. Greene, machine operator, Caterpillar Tractor Co., East Peoria, Ill.

Cecil O. Harper, City Police Department, San Diego, Calif.

Eugene Galbreath, garage mechanic, Indiana & Michigan Electric Co., South Bend, Ind.

John A. Rhodes, driver, Railway Express Company, Philadelphia, Pa.

Helen M. Cogan, examiner, American Mutual Liability Insurance Company, Boston, Mass.

Elward Alpert, postal clerk, Cincinnati Terminal Railroad Post Office, Cincinnati, Ohio.

Charles J. Ellis, superintendent of production, Socony Vacuum Oil Company, Inc., Detroit, Mich.

L. C. Lyons, miner, Pickands & Mather Company, Bessemer, Mich.

Bill Pyles, Alpha Portland Cement Co., Manheim, W. Va.

Mrs. M. M. Leitch, The Steel Company of Canada, Ltd., Hamilton, Ont., Canada.

Floyd Snyder, laborer, Bethlehem Steel Co., Bethlehem, Pa.

William Charles, stock comptroller, B. B. Chemical Co., Middleton, Mass.

A. J. Boilek, Socony-Vacuum Oil Company, Inc., East Chicago, Ind.

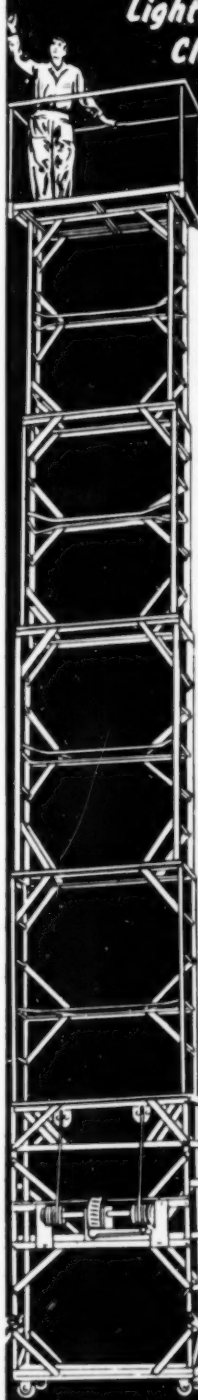
Earle F. Baker, Sheet Fabricating Dept., Continental Steel Corp., Kokomo, Ind.

Thomas Jewell Milburn, The Texas Company, Port Arthur, Tex.

J. D. Grace, advertising manager, Nordberg Manufacturing Co., Milwaukee, Wis.

FOR OVERHEAD MAINTENANCE

Painting...
Lighting...
Cleaning...



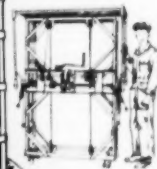
HI-LIFT Portable WORK PLATFORM

- No Erection Required
- Use at Any Height
- Safe, Sturdy, Dependable
- No Loose Parts
- Easily Rolled... Easily Raised

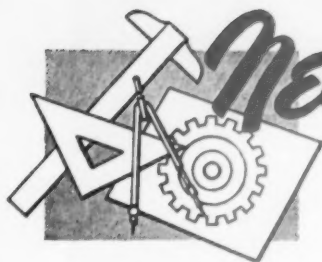
Sturdy, all welded steel construction means absolute safety... outrigger brace prevents tilting or rolling. Small enough to pass through doorway, yet raises to 20 ft. Endorsed by leading concerns.

Also Makers of HI-LIFT Extension Scaffold and ATLAS Portable Loading Platform.

Write for
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Brooklyn 32, N. Y.



New safety equipment for industry

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

Non-Skid Handles for Hammers

"Slipruff" is the name of a recently developed coating which provides a touch friction surface that is durable, grease-proof and sweat-proof for all sizes of hammers and hand drifts. The coating diminishes chances of accidents and contributes to fatigue-reduction since less muscular effort is required for a secure grip on the tool. Literature is available by writing the manufacturer:

Custanite Corp., Larchmont, N. Y.
Item No. 1

Welding Plate Retainer

A new "Lift Front" welding plate retainer with unusual features has been developed. The inner clear protective plate is permanently mounted on a stationary frame separate and behind the movable filter plate. When the filter plate is lifted for clear seeing, the stationary clear plate protects the eyes from flying slag. The filter plate and clear plate are held in place by separate tension springs. A hidden



spring in the hinge keeps the window firmly in the "up" or "down" position without affecting the clear protective plate. The frame is moulded from "Durez" plastic. As an extra protection if accidentally dropped, it has a pressed steel cover front.

This plate retainer can be furnished with any round front Sellstrom helmet. It is also interchangeable with the Standard front loading plate retainer with which "round front" helmets have been equipped during recent years. The "S" in conjunction with the factory number will identify all welding helmets equipped with the lift front plate retainer. For full details write:

Sellstrom Mfg. Co., 622 N. Aberdeen St., Chicago 22.
Item No. 2

All Plastic Welding Helmet

A new line of one-piece compression molded plastic welding helmets is announced by American Optical Co. The new No. 700 Series helmet shell is made of

thermo-setting fiberglass reinforced with polyester resin. It is said to possess advantages over materials generally used in welding helmets.

Its seamless construction makes this helmet strong and the fiberglass material is



moisture-proof and resistant to high heat. It will not warp and tests indicate superior wear and performance. It has a smooth surface which can be easily cleaned or sterilized.

AO's new No. 3 Headgear is standard equipment on the No. 700 Series fiberglass helmets. It conforms readily to any shape head to provide maximum wearing comfort and can be cleaned in antiseptic solution or soap and water. Its free-floating joint suspension is an integral part with a ratchet-type headgear adjustment.

There are four separate helmets in this series and full information will be sent by: **American Optical Co., Southbridge, Mass.**

Item No. 3

Strapping Unit

The Beltbinder, a complete strapping unit, weighing only 10 lbs., 10 oz., that fastens around the waist by means of a belt, is designed to carry strapping, tools, and seals to difficult or distant points. The unit includes three containers suspended from a belt in convenient positions with even distribution of weight. One container holds an expendable carton with a 200-foot coil of strapping which is easily dispensed at waist or thigh level. This strapping can be cut to the desired length by a hammer-cutter held in a leather pocket. A canvas pouch, holding the strapping tool and a supply of seals, completes the unit.

The light-weight portability and convenient accessibility of all equipment enables the construction or maintenance man

to work quickly and efficiently without stooping, thereby saving time and energy.



Designed by a safety engineer, the unit holds all equipment securely in place, leaves both hands free, interferes in no way with body movements, and prevents entanglement of strapping.

For full information write the manufacturer direct:

A. J. Gerrard and Co., 1950 Hawthorne Ave., Melrose Park, Ill.
Item No. 4

Spectacle Type Goggle

The Pennsylvania Optical Co. announces the addition of its new plastic frame spectacle type safety goggle, known as Model "707" to its line of head and eye protective equipment.

Its acetate frame has been designed to retain the safety lens even when subjected to severe impact. In addition to general use, it is especially suitable for use in chemical and electrical plants. Wire core temples have cable-wound ends which permit easy adjustment for a snug comfortable fit. Added comfort is found in the large wide flaring nose pads. Flesh tint, high line temples, keyhole bridge and drop-eye shape combine for a distinctly personal look. For full information and prices write:

The Pennsylvania Optical Co., Reading, Pa.
Item No. 5

Water Cooler

A line of remote type water coolers has been designed for greater versatility and a wider range of water cooling applications. Compressor, condenser, cooler and all wiring are completely enclosed in metal and finished in a baked gray enamel. The entire assembly rests on a sturdy metal base.

A choice of models in either 3, 5 or 10-

New safety equipment for industry

Further information on these new products and equipment may be obtained by writing direct to the manufacturer or to National Safety News. Accompanying coupon is for your convenience.



gallon capacities is now available. The ten-gallon model, for example, measures 30" long x 12" wide x 15" high. Inlet and outlet water connections are located



on the side of the cooler near the top, and a convenient control dial enables the user to accurately regulate the outlet water temperature within the control range to suit his own needs.

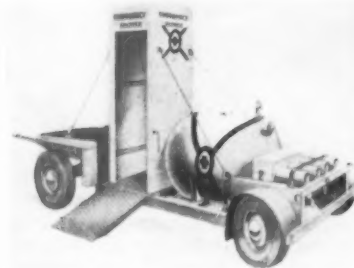
The cooler may be installed in any location where drinking water and a power supply are available. All models are approved by Underwriters' Laboratories and full information is available from the manufacturer.

Temprite Products Corp., East Maple Road, Birmingham, Mich.

Item No. 6

Mobile Emergency Shower

Emergency shower equipment a self-contained unit capable of being transported easily to areas where hazardous conditions exist has recently been developed. The



unit is trailer-mounted and comprises shower, water tank, all necessary valves, regulator and gauges, and compressed air in flasks as propellant-expelling the water.

Modern techniques of spraying water are used to rapidly quench fire, dilute and remove acids or other chemicals and foreign

materials contaminating clothing or the human body. In addition to the overhead sprays there are two special sprays provided for eyes and face, but whose action does not interfere with breathing or sight. There are four bottom sprays directed upward under smocks, coats, etc., assuring thorough wetting of the body. Four streams of water are directed on the feet from holes which also act as drains. Full information will be sent by writing direct to the manufacturer.

Logan Emergency Showers, Inc., Box 111, Glendale, Calif.

Item No. 7

Power System for Emergency Operation

A new line of automatic emergency power systems using nickel cadmium batteries for emergency operation of lights, fire alarms and public address systems has been developed. The use of nickel cadmium batteries together with automatic charging presents substantial advantages such as long battery life, lower maintenance, cannot be overcharged or deteriorate and may be left idle without attention without fear of damage. The unit is known as the Light Warden and will be available in 6, 12, 24, 32 and 110 volts with ampere capacity to meet specific requirements. The manufacturer will send complete information.

Electric Cord Co., 195 William St., New York 38.

Item No. 8

Container Labeling

A quick and positive method for labeling containers holding hazardous materials is announced. Known as Brady Quik-Label container markers, these labels stick to glass, metal, wood, plastic or ceramic containers without moistening. They are made of strong cotton cloth, silicone plastic-coated to resist oil, grease, grime and abrasion. The label surface is not affected by



most of the materials the container may hold.

State laws require different hazardous materials to be labeled with the same warning words, such as "Danger, Flammable," or "Vapor Harmful," followed by precautionary instructions, such as "Keep away from heat and open flame." Most container markers are printed with these various warning words and precautionary instructions, and have a space provided on each marker for a self-sticking insert. Each insert has the specific name of the hazardous material—such as acid, naphtha, lacquer or kerosene—printed on it. Thus with a few markers and inserts, a variety of labels can be made up on-the-spot. Markers are printed black on a contrasting caution-yellow background. Thirty-six different wordings are available on stock container markers. Insert cards with the names of most of the hazardous materials in general use are available from stock. Special markers and inserts can be made up in any wording, size, color and style.

For further information and free samples write to:

W. H. Brady Co., 727 West Glendale Ave., Milwaukee 12, Wis.

Item No. 9

Communication System for Mine Hoists

A new frequency-modulated carrier communication system for mine hoists called the HoistPhone is designed to maintain two-way conversation between the hoisting engineer and the hoisting cage. The system operates with the cage at any level, as well as in motion.

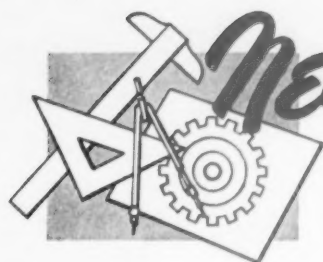
In case of cage or shaft damage while the cage is en route, voice signals can be transmitted to the hoisting engineer quickly. Leveling of cage for loading is made easier, since the cage can be "talked to" the desired level thus eliminating bell or hand signals.

The system can be used to advantage in hoist inspection trips. With a hand-type microphone, the inspector can ride atop the cage giving specific instructions to the hoist engineer. In this way, the number of trips needed to check shaft conditions or hoist equipment can be reduced. In construction work and shaft repairs, the device makes precise movement possible.

Full details and illustrations are available in Bulletin No. 1601-2 which will be sent without cost.

Mine Safety Appliances Co., Braddock, Thomas and Meade Sts., Pittsburgh 8, Pa.

Item No. 10



New safety equipment for industry

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

Tool-Tester

Fendall Co. has recently introduced a new device known as the Pow-R-Safe Tool-Tester designed to quickly and accurately detect electrical defects in electric hand tools and extension cords. The safe working condition of these hand tools and cords can be instantly determined by simple finger-tip controls. By pressing buttons, familiar red and green lights flash to indicate the following conditions: proper



equipment ground as safe; open equipment ground as unsafe; power ground as unsafe; short circuit as unsafe; good tool switch and extension cord as safe; defective or shorted tool switch or extension cord as unsafe; whether or not tool is in proper mechanical running condition. Complete tests are performed in less than 10 seconds, and preliminary tests are conducted at a safe 6 volts to avoid electrical shock to the operator if the tool is faulty.

Weighing only 6 pounds, the unit is completely portable to safety-check tools at point of operation. In addition to safeguarding workers from injuries caused by electrically defective equipment, it is also claimed that production delays caused by blown fuses are reduced. Complete details and prices may be obtained from:

Fendall Co., 4633 N. Western Ave., Chicago 25.

Item No. 11

Welding Helmet

The new Saf-I-Weld welding helmet has several new features. Made of Fiber Glass which has greater strength-weight ratio, the helmet is exceptionally strong and durable but very light in weight. The manufacturer claims that the Saf-I-Weld will cut welding helmet costs because of its greater strength and longer life. Fiber Glass is highly resilient and will not split, crack or deform and these features add to the life of the helmet.

The headgear has a patented position hinge which locks helmet in "raised" or "working position" and is adjustable to fit any head size. The one piece seamless



shell is resistant to warping from heat or moisture and meets the ASA code for electrical conductivity and strength. It is available in a light green attractive color.

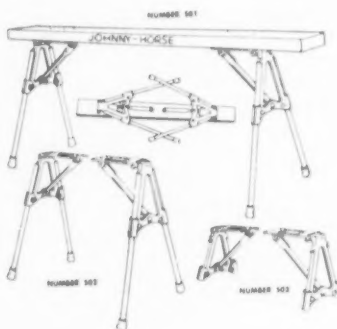
For complete information write the manufacturer:

United States Safety Service Co., 1215 McGee St., Kansas City, Mo.

Item No. 12

Johnny-Horse

Illustration shows various features of the new saw horse used by industry, building trades, institutions, utilities, or groups that have a construction, maintenance or production problem. Being made of malleable



iron, the hinge assembly is sturdy. Regular $\frac{1}{2}$ " pipe is used for legs with heavy duty rubber tips. The "horse" has a 5" height adjustment (25" to 30") and will

fold up and hang on the wall when not in use.

Full details may be had from the manufacturer:

Jon-Ne-Fut Mfg. Co., P. O. Box 226, South Gate, Calif.

Item No. 13

Flexible Hose

Three new and improved types of Flex-aust, the spiral wire reinforced flexible hose, are now available. Because of their new double-overlap construction, the new types are said to have double the resistance to flexing fatigue, greatly increased tensile strength and greater resistance to abrasion wear, while being lighter in weight than the old types they replace. Designated Type CWL, CWC, and CWY, the new types replace the CWS, CWM, CWR and RS types which will no longer be manufactured. The new construction is reported to make many additional uses possible in the handling of air, gases or materials by pressure, suction or gravity flow. A new, illustrated catalog, No. 35, giving descriptions of these new types, possible uses and applications, installation data and other pertinent information is available from the manufacturer.

American Ventilating Hose Co., 100 Park Ave., New York.

Item No. 14

Emergency Stretcher

The "Super-Jiffy" Emergency Stretcher has been designed with both the patient and operator in mind to give the greatest amount of comfort and safety. The tubing forming the bed is heavy walled heat-treated Alcoa aluminum tubing, hinged in



the center for quick folding, yet locked open when in use for additional safety.

The patient rests on a Koroseal-covered foam rubber pad which is permanently attached to the frame. With this cover, all grime, blood stains, etc., can be quickly and easily removed for sanitation. For safety, two six-foot body straps are provided as standard equipment.

The stretcher can be used as an ordinary flat stretcher until it is desired to

New safety equipment for industry

Further information on these new products and equipment may be obtained by writing direct to the manufacturer or to National Safety News. Accompanying coupon is for your convenience.



keep a patient from resting on the floor. When the wheels and legs are needed, they are snapped into position, individually locked and cannot be retracted accidentally. Wheel and leg locks, as well as the hinge locks, are engineered for easy operation, providing for safe and positive locking when in use. The applications of the unit are numerous, the most popular being in factories or plants wanting full size stretchers when in use, yet which require small space for storage in order to keep them clean and accessible.

Write the manufacturer for full details and prices.

The Bomgardner Manufacturing Co.,
1384 Hird Ave., Cleveland 7, Ohio.

Item No. 15

Bolt Hole Cleaner

United States Bureau of Mines has tested and approved the electrically driven new "MSA Bolt Hole Cleaner" designed for collecting dusts produced in rock drilling in coal mines. One rotary roof-drill



manufacturer has already concluded arrangements with MSA to install the dust-collecting units on all its roof-bolting drills as standard equipment. Various assemblies are being offered so that users can select a source of power best suited to their current operations. A mechanically driven unit has been designed for permanent mounting on either electric rotary drills or compressors. This unit takes advantage of a mechanical source of power to drive a vacuum pump, eliminating the need for electric motors or the necessity for borrowing air intended for drilling.

The electrically driven assembly, a self-contained unit with 1 hp explosion-tested motor and control, is designed for use with

rotary drills where no mechanical power take-off is available. A compressed air-driven assembly, for mines piped with air, or where there is a semi-permanent compressor, is available in two models; one that uses 22 cubic feet of compressed air per minute and operates with 25 feet of collecting hose, and one that uses 65 cubic feet per minute and will operate with 200 feet of collecting hose.

Bulletin No. 1504-1, containing full details and illustrating function and parts of the bolt hole cleaner, is available from the manufacturer.

Mine Safety Appliances Co., Braddock,
Thomas, and Meade Sts., Pittsburgh
8, Pa.

Item No. 16

Flashing Bulletin Board

Safety posters, plant messages, and other material may be quickly inserted between the two double glass panels of this flashing bulletin board, which operates on a 40-watt lamp and flashing unit. Flashes



approximately 15 times a minute and carries two separate messages that may be read from a wide angle. It accommodates standard 8 1/2" x 11 1/2" posters or other sheets and construction allows for fast changing of material.

Size over all 14 1/2" wide, 8" deep, 12 1/4" high. It is attractively finished in bright green enamel and furnished ready for use, complete with 6 ft. rubber cord and plug.

Industrial Products Co., 2850 N.
Fourth St., Philadelphia 33, Pa.

Item No. 17

Bench Parts Cleaning Can

A new plunger-type parts cleaning can is now available which can be attached to a bench convenient to the machine operator and enables him to clean parts as they

come from the machine, make micrometer checks for accuracy or any other type of inspection required without stopping the machine or interfering in any way with the continued process of the work.

The unit is a sturdy, terne plate, seam-welded rectangular container measuring



10" x 7" x 8" deep to permit washing of long narrow parts, small parts, and square or rectangular piece parts. It has a capacity of 2 gallons and is equipped with a metal-perforated plunger dasher which completely covers the opening. Parts are placed on the conveniently located dasher as they come from the machine, pressure on the dasher submerges them in the solvent for quick removal of oil, grease and minute metal particles and upon release, the excess solvent drains down into the body of the container and the parts are ready for inspection.

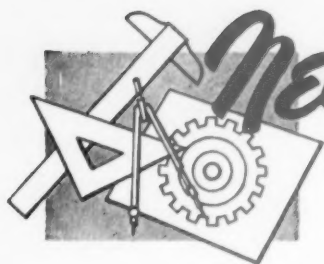
An important feature is that the can is self-extinguishing. The dasher itself acts as a flame arrester and in case of fire on its surface, the surface film of the flammable solvent vaporizes, mixes with the air and burns off. No bench surface is occupied by the unit, it hooks to the side of the bench at hand level. Write the manufacturer for full details.

The Protectosol Co., 1920 S. Western
Ave., Chicago 8.

Item No. 18

Safety Signs

A method of identifying pipes, cable, conduit and flow lines which eliminates the need of painting or stenciling has been developed by the Westline Products Division of the Western Lithograph Co. and is being marketed under the name of Tel-A-Pipes. These markers not only identify



New safety equipment for industry

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

by color, but by large clear wording as well.

Westline Tel-A-Pipes are available in four types and in over 200 stock descriptions or printed to specifications. The



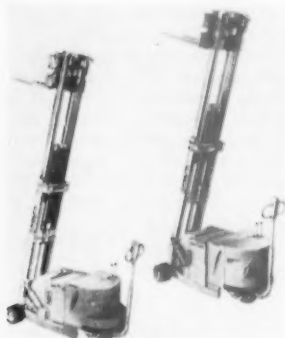
markers are quickly wrapped around pipe, adhere without moistening and stick permanently, either indoors or outside exposed to elements. They are available in five-color backgrounds, printed in black type.

This manufacturer also has a complete line of industrial safety signs printed on heavy fabric with self-adhesive backing which stick to any smooth clean surface permanently and may be removed when their need is temporary without harming the surface. Write the manufacturer for full information.

Western Lithograph Co., 600 E. Second St., Los Angeles, Calif.
Item No. 19

Power Stacker

The latest addition to the Powrworker line of Clark Industrial Trucks is the Telescopic Tilting Fork Stacker in four



base capacities of 1500, 2000, 2500 and 3000 pounds, all rated at 24" center line of load.

Two standard models are offered in each capacity incorporating the Hi-Lo Stack feature. One has an 83" overall height with 64" of free lift and 130" maximum

lift. The other, designed for highway truck loading, has a 68" overall height with 49" free lift and a maximum lift of 100". For detailed information write to: **Clark Equipment Co., Powrworker Department, Buchanan, Mich.**

Item No. 20

Wheel Block

A new heavy duty truck and trailer wheel block has been designed to hold heaviest vehicles and loads with ease. Called the Casteel Safety Wheel Block, it incorporates a number of features that assure safe holding under adverse conditions of grade, surface and load. The wheel blocks are furnished with cast-in holes on the bottom plate to permit nailing it to freight car or truck floors, shipping platforms, etc., to insure blocking of heavy equipment during shipment.

The block has a wide, curved tread plate which gives greater contact with the tire and assures even, safe distribution of the



load. A heavy center rib support, designed to resist maximum thrust, gives the block a wide margin of strength and safety. A feature of the new block is the heavy steel gripper teeth on the bottom plate, which keeps the block from creeping or slipping even on ice or snow. Provision for hook or chain attachment to the block is made by a cast-in hole on the center rib support. The owner's name may be cast on the bottom plate for identification and the blocks are painted standard safety yellow for high visibility.

Calumet Steel Castings Corp., 1636 Summer St., Hammond, Ind.

Item No. 21

One-Man Fire Engine

A new, powerful, one-man fire-fighting wheeled engine for extinguishing large-

scale B and C fires is announced by American-LaFrance-Foamite Corp. It is a dry chemical wheeled engine with a capacity of 150 lbs. Discharging free-flowing, quick-smothering Alfco dry chemical is a companion unit to the Model 350 two-man engine with a capacity discharge of 350 lbs.



The new Model 150 is only 480 lbs. in weight, fully charged and can be easily wheeled, maneuvered and operated by one man. It carries the inspection and approval label of Underwriters' Laboratories with B and C classification.

Free literature is available from: **American-LaFrance-Foamite Corp., Elmira, N. Y.**
Item No. 22

Floor Machine

Production of a new, all-purpose floor machine, the MC-22 has been developed



New safety equipment for industry

Further information on these new products and equipment may be obtained by writing direct to the manufacturer or to National Safety News. Accompanying coupon is for your convenience.



to serve larger institutions and industrial plants. The machine is powered by a G.E. 1½ hp. motor and combined with its portability, it is said to be ideal for floor areas of 20,000 sq. ft. or more. With the addition of the MC-22 to its line, Multi-Clean now features six machine sizes to handle floor areas ranging in size from 750 sq. ft. to 20,000 sq. ft. and over.

In selecting the proper size floor machine with respect to the floor area to be covered, the company gives the following as a guide: 12" machine, 750 sq. ft. to 2,000 sq. ft.; 14" machine, 2,000 sq. ft. to 5,000 sq. ft.; 16" machine, 5,000 sq. ft. to 10,000 sq. ft.; 19" machine, 10,000 sq. ft. to 20,000 sq. ft.; 22" machine, 20,000 sq. ft. and over.

Complete information is available from: **Multi-Clean Products, Inc., 2277 Ford Parkway, St. Paul 1, Minn.**

Item No. 23

Anti-Static Device

Recommended for hospital operating rooms, ordnance plants and industry is a new anti-static product known as Safestat which manufacturer claims effectively grounds equipment in areas where explosion hazards exist.

Contact of various equipment with the conductive floor is made by Safestat's metal plate, which measures 7" x 7", covering



a 49 square inch area. The 3 lb. tension weight, in a cantilever position, maintains a constant pull on a chain attached to op-

erating equipment. The chain is easily attached to any part of the equipment at the desired tension to eliminate drag. Detachable 2 foot lengths of chain can be taken from Safestat to accommodate various heights. The product's 250,000 ohms resistor (increased or decreased according to specification) is capable of preventing an electrical shock charge even if an exposed wire touches the contact plate.

Walter G. Legge Co., Inc., 101 Park Ave., New York 17, will send you full information.

Item No. 24

Wire Creeper

The Martindale Wire Creeper enables linemen to string additional wire through trees, over buildings and other troublesome areas quickly and easily, wherever one wire is already in place. The creeper is placed on the wire and by means of pulling and releasing the plastic cord attached to it, the operator moves the creeper away from him and along the wire in



10 to 20 foot leaps from one pole to the next. When the creeper reaches the next pole, the new wire is pulled across by means of the plastic cord.

Line splices and frayed insulation are no problem for the creeper. It will travel up steep inclines and through twigs and foliage of surrounding trees. For night work, a luminous bottom permits the operator to follow its progress closely. At times of storms and other emergencies, the creeper is invaluable because of its speed of operation. Full details from the manufacturer.

Martindale Electric Co., 1375 Hird Ave., Cleveland 7, Ohio.

Item No. 25

Safety Switch

The Tricop switch for use on portable electric drills, equipped with key chucks,

eliminates the possibility of operating the drill with the key in place in the chuck. With this switch it is necessary to remove the key from the chuck and insert it in the switch before the circuit is completed and the tool is operable. The switch can be installed easily on any electric drill by merely removing the switch plate and attaching wire.

Write manufacturer for full details. **Tricop Distributing Co., 308 W. Center St., Akron 2, Ohio.**

Item No. 26

Loading Dock Shelters

Rugged canvas loading dock shelters which extend outward on a collapsible steel framework to shelter truck or freight car loading doors of any size, and which collapse flush against the building when



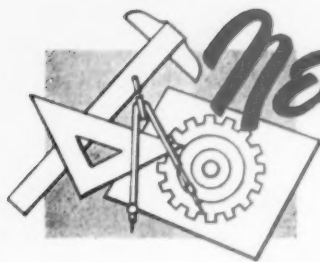
not in use is a recent new development. Each of several standard models can also be adapted to fit any unusual condition of use.

Advantages of these shelters are that they protect men and materials against all extremes of weather; they increase labor efficiency in loading and unloading trucks and freight cars; they keep dock-boards dry thus speeding the loading operation and promoting safety; they boost the percentage of containers and merchandise arriving or leaving in good condition.

The manufacturer also produces canvas "wall" curtains for use indoors as effective windbreakers, to stop cold drafts and heat loss. These, too, feature Atlas-fabricated steel framework, as well as the rugged construction of the loading dock shelter. Available on request to the manufacturer is booklet illustrating in detail the various standard models.

Atlas Products Co., 1300 W. Washington Blvd., Chicago 7.

Item No. 27



New safety equipment for industry

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

News Items

Industrial expansion throughout central and north central states has led the Mine Safety Appliances Co., Pittsburgh, to establish headquarters and warehouse facilities here for a new nine-state sales district. With trained safety-sales engineers the new district includes Kansas, Missouri, Iowa, Nebraska, Minnesota, Wyoming, East Montana and North and South Dakota.

Sales manager of the new district is C. H. McHaffey, a former resident of Kansas, who has been with the company 17 years. Until his new appointment, Mr. McHaffey was assistant manager of the Industrial Department of the company at Pittsburgh. A graduate of Kansas State College with BS degrees in mechanical and electrical engineering, Mr. McHaffey is a member of the American Society of Safety Engineers, Veterans of Safety and a director of the American Industrial Hygiene Association.

* * *

A nationwide plan which permits users to lease industrial lift and fork trucks and allied equipment rather than buying them has been announced jointly by the Philadelphia Division of the Yale & Towne Manufacturing Co., and C. I. T. Corp. The new plan enables factories, warehouses, railroads and others to obtain Yale materials-handling equipment by paying monthly rentals. Under the program, the field sales organization of Yale & Towne will negotiate leasing agreements for Yale equipment with potential users. C. I. T. will then purchase the equipment from Yale & Towne and lease it to the user for an agreed period of time. A corollary plan is also available for users who wish to purchase Yale materials-handling equipment on installment terms rather than lease.

American Optical Co. has announced the appointment of Sidney T. Grunnah as distribution manager. Mr. Grunnah has been regional manager at Chicago, and for the present will maintain his offices there. In this new position he will be responsible for all operational functions in the Distribution Organization, including sales, personnel and administration. He joined the company in 1926 as a clerk in the New York Branch credit department, and two years later was promoted to a credit post in the Memphis zone. He soon moved to Dallas, Texas, and became successively credit manager, zone manager and regional manager. He was transferred to Chicago as regional manager in 1949.

The American Optical Co. also announces appointment of W. Neel Foster as distribution coordinator and assistant to the vice president in charge of operations. He has been assistant regional manager in New York and will maintain his offices there for the present.

As distribution coordinator, Mr. Foster will be responsible for customer relations, and for the coordination of relations between the company's seven product divisions and its customers. A native of Warrensburg, Mo., he started in the optical business in the prescription department of Merry Optical Co. at Kansas City, Mo., in 1914. He became stock manager at Kansas City in 1922 and transferred to the New York branch of American Optical Company in 1926 as branch manager. He was promoted to zone stock control manager, then zone manager, and in 1949 became regional distribution manager.

* * *

C. A. Reilly has been appointed Pittsburgh representative for the Pennsylvania Optical Co. His headquarters will be 245

Seaforth Ave., Pittsburgh, Pa. He was formerly with Safety First Supply Company in Pittsburgh.

* * *

The Colorado Fuel and Iron Corp. has completed the acquisition of the plants, inventories and business of John A. Roebbling's Sons Co., Trenton, N. J. The Roebbling properties will be operated by John A. Roebbling's Sons Corp., a newly-formed and wholly-owned subsidiary of Colorado Fuel and Iron.

At a meeting of the board of directors of the new Roebbling Corp., Mr. Allen was named Chairman of the Board, A. F. Franz was named President and Charles Roebbling Tyson, Executive Vice President. Mr. Franz is President of Colorado Fuel and Iron Co. and Mr. Tyson served as President of the Roebbling concern from 1944 until its acquisition by Colorado Fuel and Iron.

Mr. Franz began his career in the steel industry as an open hearth pitman for the Otis Steel Co. in Cleveland. In 1930, he became associated with Alan Wood Steel Co. and acted in the capacity of general superintendent in charge of the steel division from 1939 to 1945 when he left to become general superintendent of the Wickwire Spencer Steel Company's plant at Buffalo, N. Y., before Wickwire merged with Colorado Fuel and Iron in 1945. He was put in charge of all operations at Colorado Fuel and Iron's plant in 1946 and later was elected vice-president in charge of operations for the entire Colorado Fuel and Iron Corp.

Mr. Tyson, executive vice-president of the new corporation, started with the Roebbling Company in 1935, worked in a number of departments including the open hearth and wire mills, and became secretary-treasurer in 1940. In 1944 he became president.

NATIONAL SAFETY NEWS
425 N. Michigan Ave., Chicago 11, Ill.

APRIL, 1953

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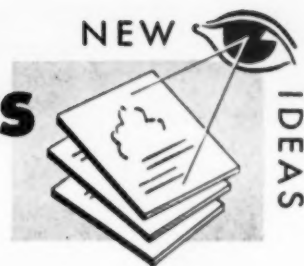
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Trade publications

in the safety field

These trade publications will help you to keep up-to-the-minute on new products and developments in industrial health and safety equipment. They are free and will be sent by manufacturers without obligation to readers of NATIONAL SAFETY NEWS who are responsible for this work. Send in the coupon below checked for the publications you desire. Please make your requests promptly.



1. Steel Rolling Doors: Catalog contains the most up-to-date details on the interlocking steel-slat rolling doors. Included are: service doors, fire doors, bifold doors, roll-top sectional overhead doors, steel rolling grills and special doors. Kinnear Manufacturing Co.

2. Standard Rubber Parts from Stock Molds: Catalog contains company's complete line of rubber products. Described are: rubber bumpers, bushings, suction cups, grommets, gaskets, packings, cylinder stock, rods, washers, etc. Also refers to industrial rubber protective clothing. Miller Products Co., Inc.

3. Sling Chain Chart: Chart identifies the various types of sling chains and different attachments which may be used on single, double, triple and multiple slings for lifting loads. Gives specifications, length and width of links, proof-test, etc. Back of chart provides space for keeping performance records. The McKay Co.

4. Rubber Dock Bumpers: Bulletin describes rubber bumpers for the trucking and warehouse industry. Describes how bumpers prevent damage to truck bodies and castings, eliminates dock repair, reduces damages, etc. Applications and bumper specifications included. Durable Mat Co.

5. Safety Drill Tables: Catalog covers company's line of safety drill tables for maintenance and miscellaneous drilling. Also featured are modern cutting-off machines along with specifications. Modern Machine Tool Co.

6. Moto-Sweeper: Bulletin describes company's floor sweeper adaptable to large or small areas which is capable of doing the work of ten to twelve men with a broom. The Moto-Mower Co.

7. Safety Treads: A new file folder providing complete information on safety treads. The file form contains 28 plates of details on plates, platforms, curb-bars, and floor grids. Wooster Products, Inc.

8. "101 Hints on Better Floor Care": Booklet covers 64 major floor maintenance problems. Contains important facts about the care and treatment of asphalt, cork, ceramic tile, rubber, concrete and wood floors. Huntington Laboratories, Inc.

9. Swivelier Adjustable Lighting: Catalog illustrates canopy shade units, portable units, "Vogue-Lites," recessed fixtures, wiring devices, units for outdoor use, special units and lighting accessories. Profusely illustrated with both installation photographs and line drawings with suggested application. Swivelier Co., Inc.

10. "Mobilfirewall": New brochure describes a movable steel fire partition for storage areas and other special spaces in public buildings, schools, hospitals, laboratories, and other buildings. Included are detailed drawings and descriptions. Virginia Metal Products Corp.

11. Feralun Safety Treads: Bulletin describes Feralun safety treads made with a diamond-hard abrasive to provide secure footing—wet, oily or dry. Illustrated are treads for concrete stairs, structural treads, odor thresholds, elevator sills, and floor plates and trench covers. American Abrasive Metals Co.

12. Industrial Elevators and Cranes: 36-page bulletin describes portable elevators with load capacities from 500 to 5,000 pounds, with lifting heights up to more than 30 feet. Also illustrated are pallet elevators, barrel elevators including drum dumping types, floor-to-floor elevators, etc. Portable cranes with fixed or revolving bases. Barret-Cravens Co.

13. "Joy Electrical Connectors": Bulletin MC108 describes round plugs and receptacles, oval plugs and receptacles, lamp sockets, distribution centers, and cable vulcanizers. Joy Manufacturing Co.

14. Space Saving Fork Trucks: Operational features, engineering details and maintenance advantages of spacemaster electric fork trucks are described and illustrated in catalog. Trucks are from 1,000 to 4,000 pounds capacity. Included are special purpose attachments. Lewis-Shepherd Products, Inc.

15. Non-slip Floor Coating: Brochure describes "R-Mir-Dek" non-slip coating for concrete, wood floors, staircases, areas around machinery and loading platforms. Applies with square edge trowel to all types of floor surfaces. Miracle Adhesive Corp.

16. Burn Spray First Aid Kits: Literature describes Foille burn spray kits, Hydrosulphosol burn spray kits and fire department kits. Featured is the new unit type burn spray packet with pressure cartridge spray. Medical Supply Co.

17. Plant Protection: Folder describes watchlock system for establishing plant protection against fire and theft, also provides a permanent record of watchman's activities throughout period of his tour. Chicago Watchlock.

18. "Gyalites": Bulletin No. 5015 describes Gyalites which are easily installed on overhead cranes and other hazardous moving equipment, such as plant locomotives, scale cars, transfer cars, etc. The Gyalite flashes, giving a warning signal when noise levels are too high for sound signals. Pyle-National Co.

19. Portable Head Cutters: Bulletin describes portable head cutters for cutting out drum heads. Featured is the Model 500 hand operated, double ratchet drive; Model 200 hand operated, worm drive crank; Model 600 hand operated, for cyanide, carbide, caustic soda, resin and all other "one trip" containers. Michael A. Shinker Manufacturing Co.

20. "Safway Scaffolding": Bulletin describes maintenance towers constructed of high carbon tubing. Treated with rust inhibitor and enamel baked on all surfaces inside and out. Safway Steel Products, Inc.

21. Water-Repellent Coating: Booklet describes Dehydrate No. 22, a silicone water-repellent coating which uses the principle of negative capillarity. Pores of concrete, stucco, and masonry become effectively water repellent when treated with this agent and is acid and alkali resistant. A. C. Horn, Inc.

NATIONAL SAFETY NEWS

425 N. MICHIGAN AVE., CHICAGO 11, ILLINOIS

APRIL, 1953

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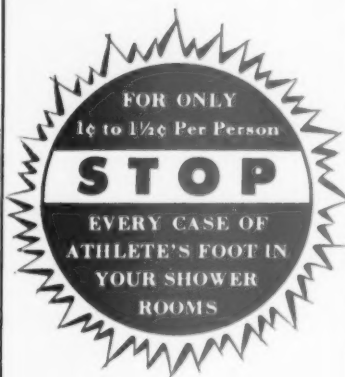
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AO 301A
Duralite Goggle

FOR FLYING PARTICLES When flying particles are a menace as in heavy chipping, grinding, babbiting, riveting and hand tool and machine work, this goggle is a standby.

QUICK FACTS — Individual eyecups molded to fit contour of each eye — are low set for wide angle vision — won't conduct heat or electricity. Air channels ventilate, reduce fogging. Aluminum lens retaining rings resist corrosion. Quickly adjusted, insulated bridge. 50 mm. Super Armorplate or 6 Curve Super Armorplate Clear or Calobar Lenses, medium, dark or extra dark. Easily adjusted, one-piece headband. Rubber eyecup cushions extra.



AO 404A
Duraweld Goggle

FOR RAY PROTECTION Here's eye protection at its best for acetylene welding, cutting, brazing and furnace operations where the hazards are light rays, glare, flying sparks and scale.

QUICK FACTS — Special side shields prevent injurious rays, sparks or metal flashes from reaching eye area — provide indirect ventilation to control fogging. 50 mm. Noviweld lenses, shades 3, 4, 5, 6 or 8. Or Noviweld Didymium, shades 3, 4, 5 or 6. Easily replaceable cover lenses available to protect basic lenses. Eyecups, bridge headband and rubber cushions similar to 301A goggle above.



AO 302A
Dust Goggle

FOR DUST PROTECTION While primarily for protection against fine dust particles as in cement and compressed air operations, the 302A also safeguards against flying particles coming from any direction.

QUICK FACTS — 100 mesh wire screen on inside of side shields bars dust from eyes. Solid fibre retaining rings. Eyecups, bridge, lenses, headband and rubber cushions similar to 301A goggle above.

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